Arizona Medicine

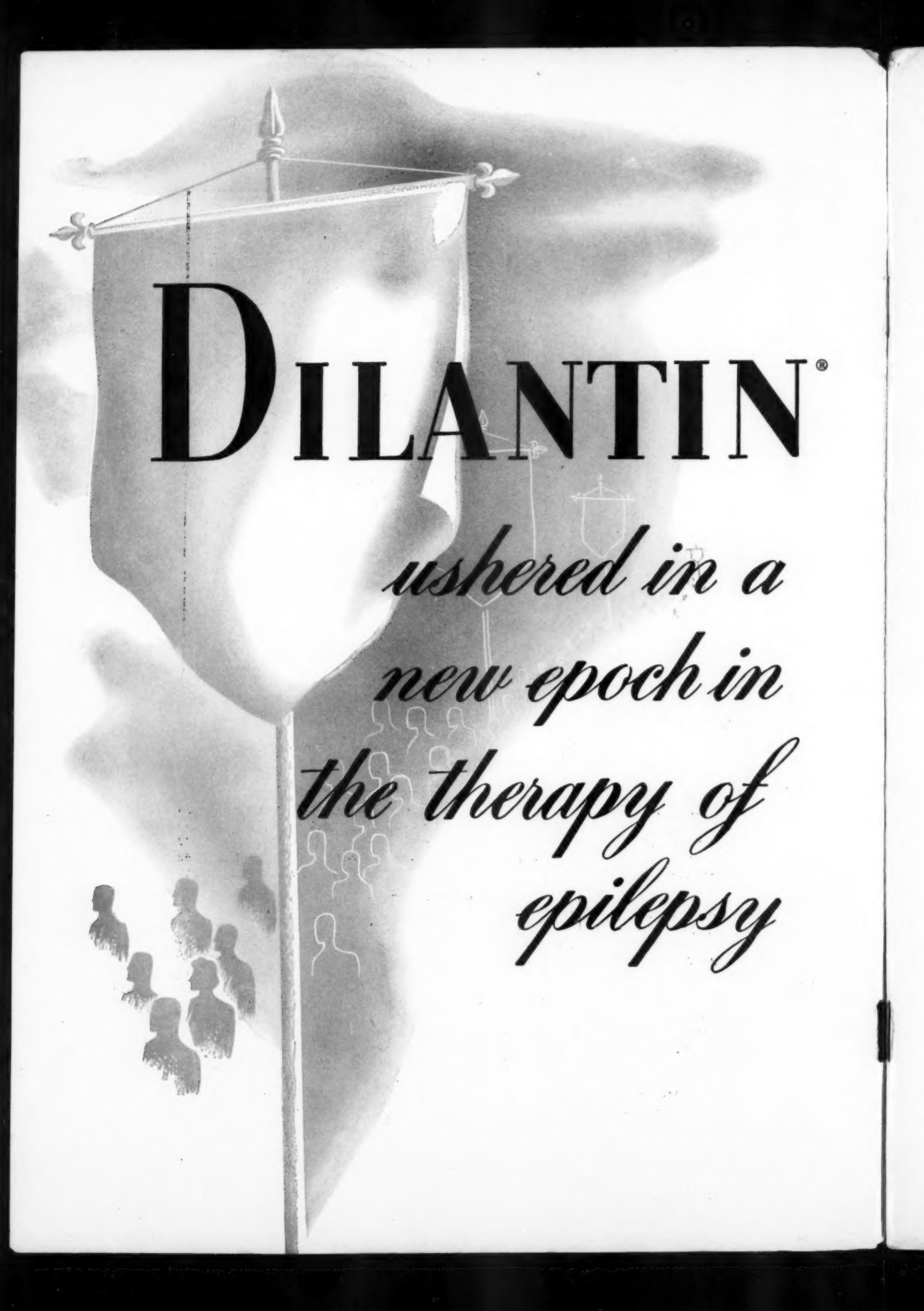
Journal of ARIZONA STATE MEDICAL ASSOCIATION

VOL. 5, NO. 5 SEPTEMBER, 1948

SCIENTIFIC SECTION

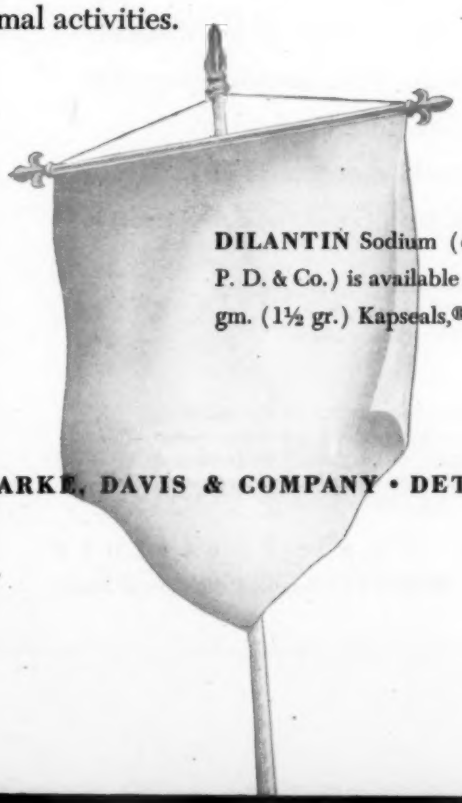
MISCELLANEOUS SECTION

EDITORIALS


DILANTIN®
ushered in a
new epoch in
the therapy of
epilepsy

DILANTIN
denotes defense

against the grand mal or psychomotor type of epileptic seizure. In the majority of patients, DILANTIN prevents attacks or greatly decreases their frequency or severity. Optimal control is afforded by individualized dosage determined by trial in the particular case. Relative freedom from hypnotic side-effects enhances the effectiveness of DILANTIN in fostering the patient's return to his normal activities.



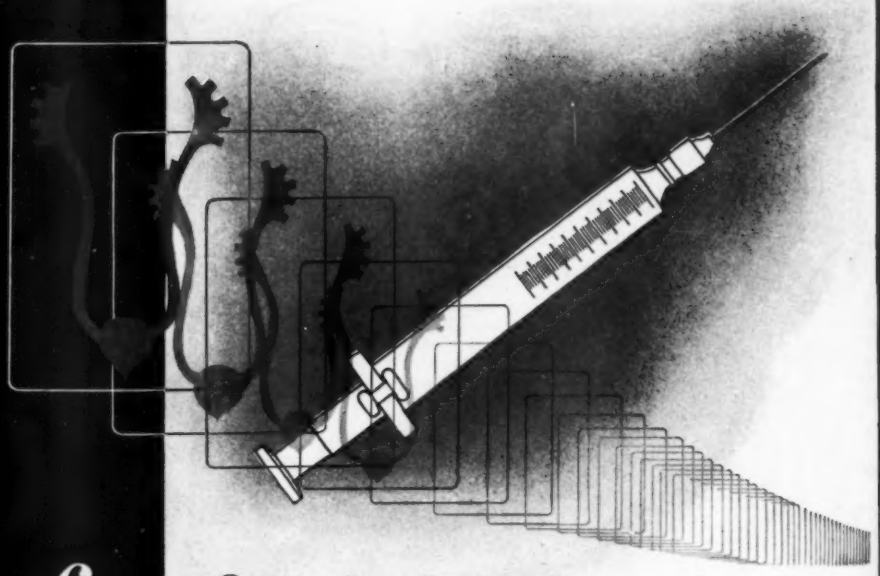
DILANTIN Sodium (diphenylhydantoin sodium, P. D. & Co.) is available in 0.03 gm. (½ gr.) and 0.1 gm. (1½ gr.) Kapseals,® in bottles of 100 and 1000.

PARKE, DAVIS & COMPANY • DETROIT 32, MICHIGAN

MEDICAMENTA VERA · P & CO.

ARIZONA MEDICINE

September, 1948 Vol. 5, No. 5
Published bi-monthly by Arizona Medical Association at 142 South Central Avenue, Phoenix, Arizona. Subscription $1.50 per year; single copy 25 cents. Entered as second class matter March 1, 1921, at Postoffice at Phoenix, Arizona, act of March 3, 1879.



Safe for injection

The safety record of NEO-IOPAX® — Schering's brand of sodium iodomethamate for intravenous urography — is noteworthy: more than fifteen years of effective urinary tract visualization *without a single fatality* reported in the literature. The relative safety of

NEO-IOPAX®

(*disodium N-methyl-3,5-diiodo-chelidamate*)

is due to its unique composition and stability, the meticulous care exercised in its preparation, the careful control of all manufacturing stages, and the rigorous inspection of the finished product. Each ampul of NEO-IOPAX is sterile and free from foreign particles.

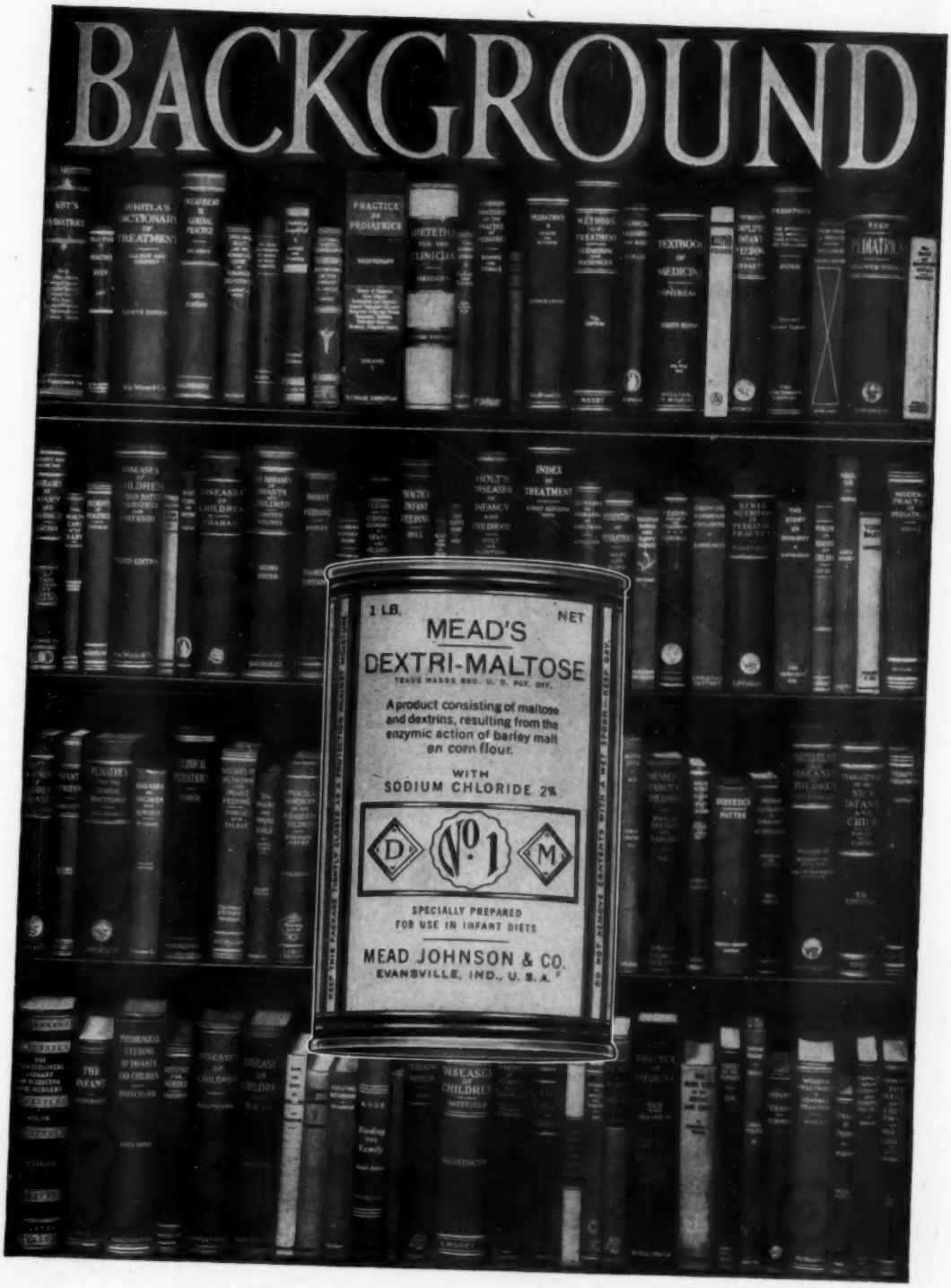
NEO-IOPAX is available in 10, 20 and 30 cc. ampuls of 50% concentration and 10 and 20 cc. ampuls of 75% concentration. Packaged in boxes of 1, 5 and 20 ampuls.

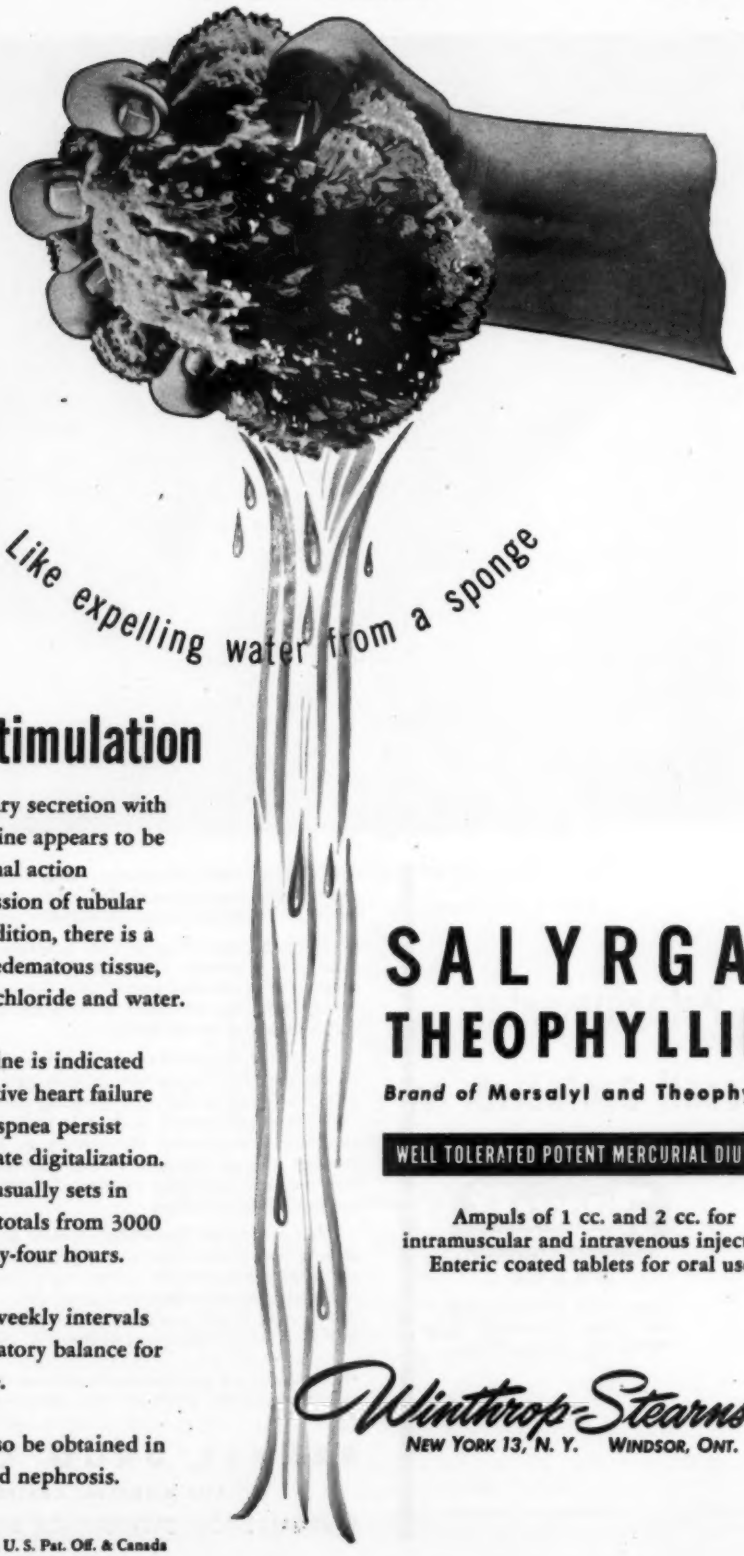
®

Schering CORPORATION • BLOOMFIELD, NEW JERSEY
IN CANADA, SCHERING CORPORATION LIMITED, MONTREAL

NEO-IOPAX

SCHERING


BACKGROUND
1 LB. NET
MEAD'S
DEXTRI-MALTOSE
A product consisting of maltose and dextrins, resulting from the enzymic action of barley malt on corn flour.
WITH
SODIUM CHLORIDE 2%
D
No. 1
M
SPECIALLY PREPARED
FOR USE IN INFANT DIETS
MEAD JOHNSON & CO.
EVANSVILLE, IND., U. S. A.



Urinary Stimulation

Stimulation of urinary secretion with Salyrgan-Theophylline appears to be due chiefly to its renal action consisting of depression of tubular reabsorption. In addition, there is a direct influence on edematous tissue, mobilizing sodium chloride and water.

Salyrgan-Theophylline is indicated primarily in congestive heart failure when edema and dyspnea persist after rest and adequate digitalization. Gratifying diuresis usually sets in promptly and often totals from 3000 to 4000 cc. in twenty-four hours.

Injections at about weekly intervals help to insure circulatory balance for long periods of time.

Good results may also be obtained in chronic nephritis and nephrosis.

SALYRGAN, trademark Reg. U. S. Pat. Off. & Canada

SALYRGAN THEOPHYLLINE

Brand of **Mersalyl and Theophylline**

WELL TOLERATED POTENT MERCURIAL DIURETIC

Ampuls of 1 cc. and 2 cc. for intramuscular and intravenous injection. Enteric coated tablets for oral use.

Winthrop-Stearns INC.
NEW YORK 13, N. Y. WINDSOR, ONT.


AGA
SUPREMUS PRO POTUS
GARDEN GROVE
Sanitarium
TO THE TIRED AND ILL, Garden Grove is truly a haven for rest and peace and tranquil harmony... the ultimate in luxurious accommodations, relaxing recreations, fine cuisine, friendly attention and thoughtful care. A beautiful fifteen acre garden estate located thirty miles southeast of Los Angeles. Diagnostic and treatment clinic. Resident physicians. Write for booklet... address request to Dept. D-3.
Phone Garden Grove 2121.
GARDEN GROVE SANITARIUM • GARDEN GROVE, CALIFORNIA

A Supplement to Fine Surgery

APPLICATION of Tincture 'Merthiolate' (Sodium Ethyl Mercuri Thiosalicylate, Lilly) to the operative field assures rapid elimination of many pathogenic organisms. Extra protection is afforded because 'Merthiolate' continues to inhibit and destroy organisms as they are released from sebaceous and sweat glands during the surgical procedure. 'Merthiolate' does not coagulate tissue proteins. Significant, too, is its compatibility with soap and other defatting agents.

'Merthiolate,' the many-purpose antiseptic, is available in the following convenient-to-use preparations:

'Merthiolate' Tincture	1:1,000
'Merthiolate' Solution	1:1,000
'Merthiolate' Jelly	1:1,000
'Merthiolate' Ophthalmic Ointment	1:5,000
'Merthiolate' Suppositories	1:1,000

Lilly

ELI LILLY AND COMPANY, INDIANAPOLIS 6, INDIANA, U. S. A.

A 15 x 12 reproduction of this Robert Riggs illustration is available upon request.

Lilly in Denmark

THE ADVENT of Protamine Zinc Insulin in 1936 added materially to the well-being and comfort of diabetic patients in whom it has since been employed. The basic research which made this achievement possible was accomplished by Dr. H. C. Hagedorn and his associates, of Copenhagen. Eli Lilly and Company has co-operated fully in its elaboration for over a decade.

In 1946, distribution of Lilly products to the Danish medical and pharmaceutical professions began. The Lilly Research Laboratories offer Danish physicians their full co-operation in the development of new and superior medicinal agents. Physicians in the United States will be certain to share in any practical innovations which may be forthcoming.

LILLY INTERNATIONAL

ARIZONA MEDICINE
Journal of
ARIZONA STATE MEDICAL ASSOCIATION
VOL. 5, NO. 5 SEPTEMBER, 1948

NEW CONCEPTS IN THE APPLICATION OF RADIUM TO THE NASOPHARYNX

JOHN S. MIKELL, M. D.
Tucson, Arizona

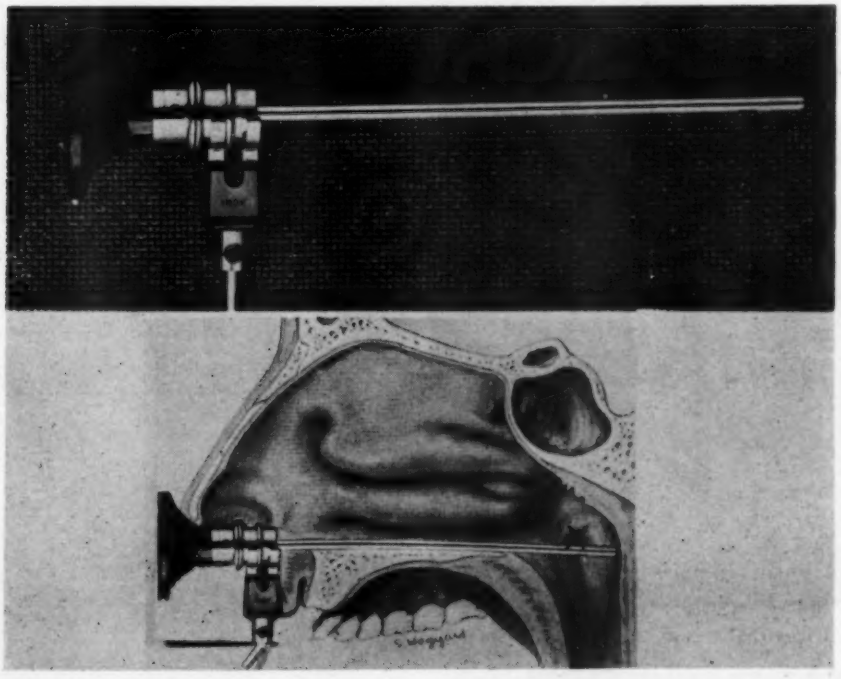
I AM privileged to present a paper concerning my results following the application of radium to infected hyperplastic lymphoid tissue in the nasopharynx. This type of therapy was instigated twenty odd years ago by Dr. S. J. Crowe, an Ear, Nose and Throat Specialist at Johns Hopkins Hospital, and Dr. C. E. Burnam of the Kelly Radium Institute of Baltimore.

Presented to the Arizona State Medical Association Convention, Phoenix, May 21, 1948.

They conceived the idea of applying small doses of radium to the adenoid tissue located in or about the eustachian tube openings in children showing a hearing loss. Since that time it has been shown that the reduction of this tissue and the infection contained therein has been beneficial in other types of cases.

The DIGEST OF NEUROLOGY AND PSYCHIATRY estimates that there are 3,000,000

Slide I



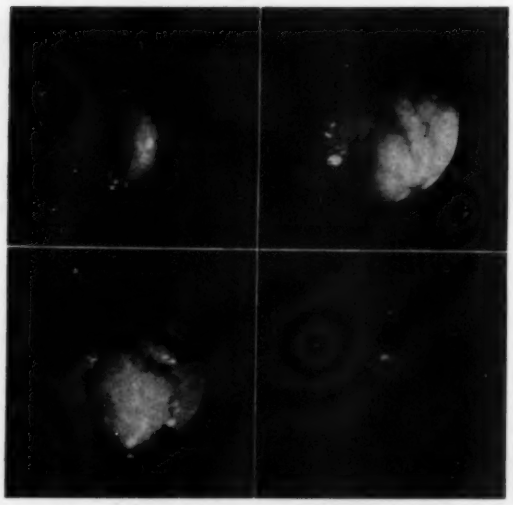
This instrument is passed along the floor of the nose into the nasopharynx and permits the examiner to secure a very clear and concise picture of that area.

children in the United States with hearing loss. These children naturally are backward in school and, due to the environmental conflict often become behavior problems. In juvenile delinquents, the children with hearing defects outnumber the children with normal hearing six to one. In children who repeat grades there are four of these children to one child with normal hearing. It costs the taxpayers between $115 and $750 for each child who repeats a grade.

Dr. Crowe's rationale in treating these children with a hearing defect was that infected hyperplastic lymphoid tissue in the nasopharynx caused malfunction of the eustachian tube. The function of the eustachian tube is to ventilate and maintain a constant air pressure within the middle ear corresponding to the atmospheric pressure without. If this pressure is altered, the middle ear cannot function normally and a hearing loss results. It was their contention that a reduction of the lymphoid tissue in or about the eustachian tube orifice would permit proper ventilation of the middle ear, which would in turn function normally, and the hearing loss would be restored.

To determine if a patient with a hearing loss requires this type of therapy, the nasopharynx is examined with a nasopharyngoscope.

Slide II



(Hendricks-Lieberman, First Air Force)

This slide shows photographs taken through the nasopharyngoscope and reveals a normal eustachian tube orifice as shown in the upper left-hand corner. Note the smoothness of the tissue. In the upper right-hand corner and lower left-hand corner are pictures which show folds of adenoid tissue which are seen encroaching upon, and greatly reducing the size of, the eustachian tube opening. In the lower right-hand corner is a photograph showing congestion of the tissue about the orifice.

If, after a careful examination and evaluatoin of the amount and location of any hyperplastic tissue that may be present, it is decided that the use of radium is indicated, the irradiation is applied with the Burnam-Crowe monel metal nasopharyngeal radium applicator, manufactured by the Radium Chemical Company of New York City. The radium (50 mg. of radium sulphate) is contained in the capsule attached to the tip of the instrument shown on the screen.

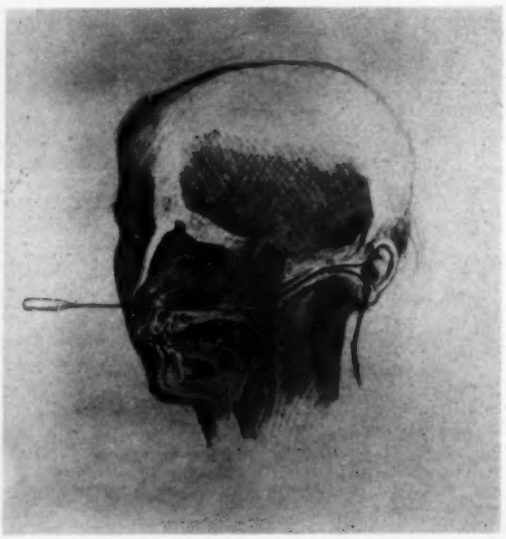
Slide III

(See page 27)

The applicator is passed along the floor of the nose until it rests against the postnasopharyngeal wall. This places the radium capsule in contact with the eustachian tube orifice. An applicator is used on both sides and left in place for 8½ minutee once every two weeks for five applications.

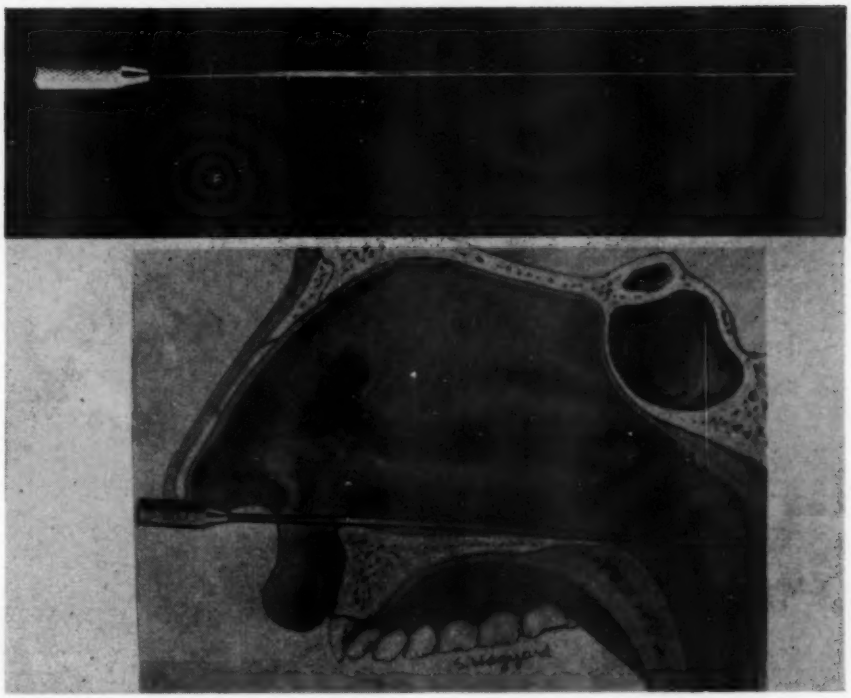
The next slide is an illustration drawn by Mr. Hutton Webster of Tucson.

Slide IV



You will note the eustachian tube and external auditory canal on the left side. The orifice of the

Slide III



right eustachian tube is seen opening into the nasopharynx. Mr. Webster has very cleverly demonstrated lymphoid tissue about this area. The radium applicator is seen resting against the offending tissue.

The radium is screened by 0.3 mm. of monel metal which emits 80% beta rays and 30% gamma rays. Only those rays that are absorbed by the tissue are of therapeutic value. Practically all of the beta rays are absorbed within the first 10 mm. of tissue. while very few of the gamma rays are absorbed, since due to their high velocity many of them pass entirely through the body. On each treatment with the applicator, the patient receives the equivalent of 1 gm. - 25 seconds. There is very little local reaction following these treatments and in 3,650 treatments I have given to 750 patients, there have been only two patients who have complained of unfavorable reactions.

The only possible danger is that an over-zealous physician may administer additional irradiation without consulting the patient and physician who gave the initial series.

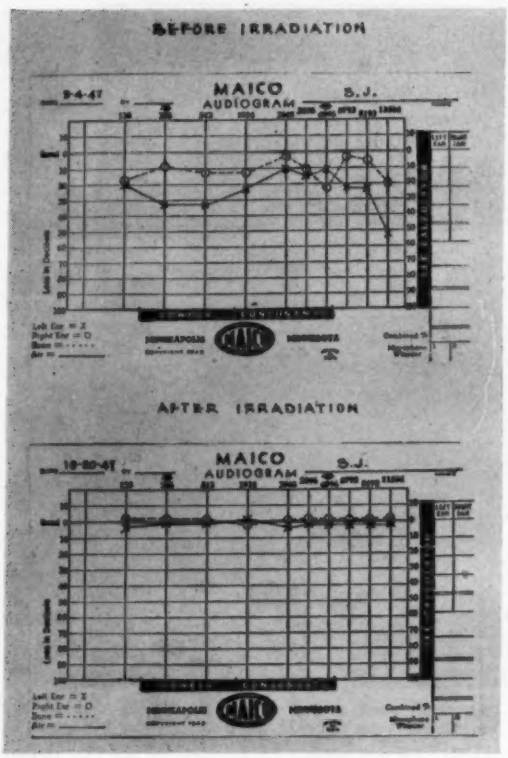
The irradiation prevents mitosis asd new cell formation, which is nature's way of replacing the older cells as they "die off." This will accomplish our purpose, which is to reduce the infected hyperplastic tissue that is causing malfunction of the eustachian tubal orifice and thereby restore the function of the middle ear.

It will, of course, do nothing to improve the nerve type of deafness. However, there is a mixed type of deafness which is a conductive deafness superimposed on a nerve type, which should receive this type of treatment in the event that the conductive loss is greater than the nerve impairment.

Sventy-five adults complaining of an established hearing loss were treated and the results obtained were completely unsatisfactory. Even though it is impossible to restore the hearing loss in adults, it is highly important to determine if such treatment will retard its progression. To determine this factor, the audiograms of this group are being compared with the audiograms of a similar number of adults who have not received irradiation.

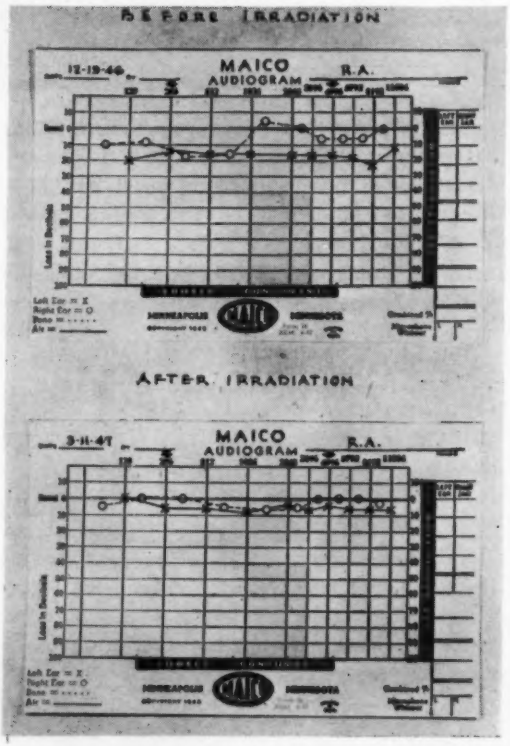
In children the results obtained are spectacular. as shown by a few audiograms selected from my records:

Slide V



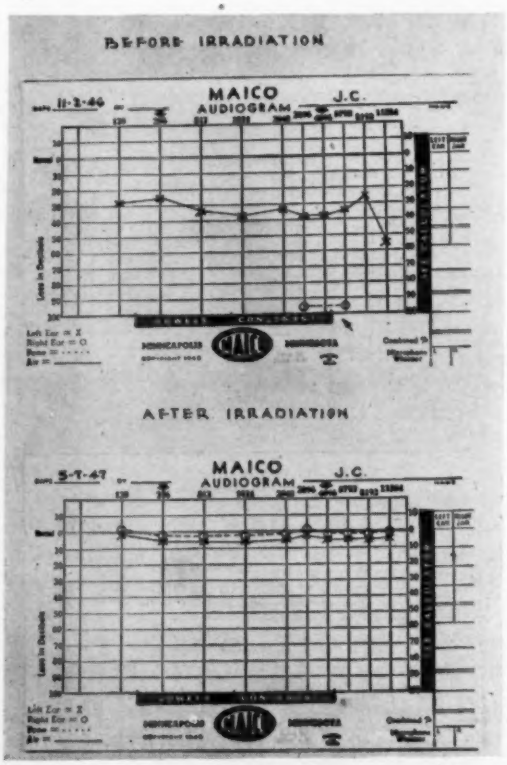
The normal hearing is shown on these audiograms by the double line running across the top of the page. The individual's hearing acuity is shown by the two added lines. Note that this first child had a hearing loss of 30% at these two frequencies. At the bottom of the slide are results obtained.

Slide VI



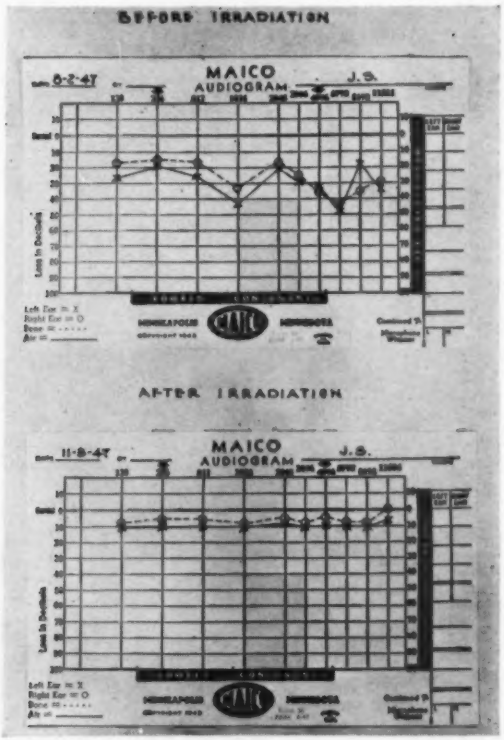
This is another child who was greatly benefitted by this type of treatment.

Slide VII



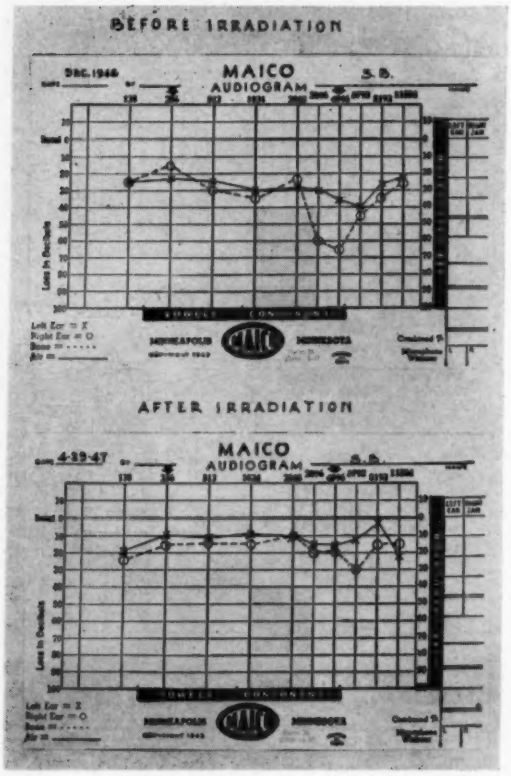
This child could not hear a telephone ring before being treated. It is a remarkable result when a child with this amount of hearing loss could be returned to normal.

Slide VIII



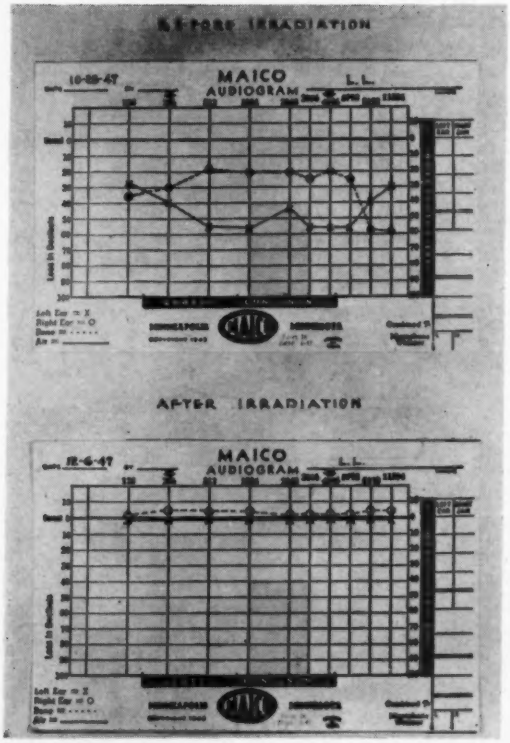
This child has shown a remarkable personality change.

Slide IX



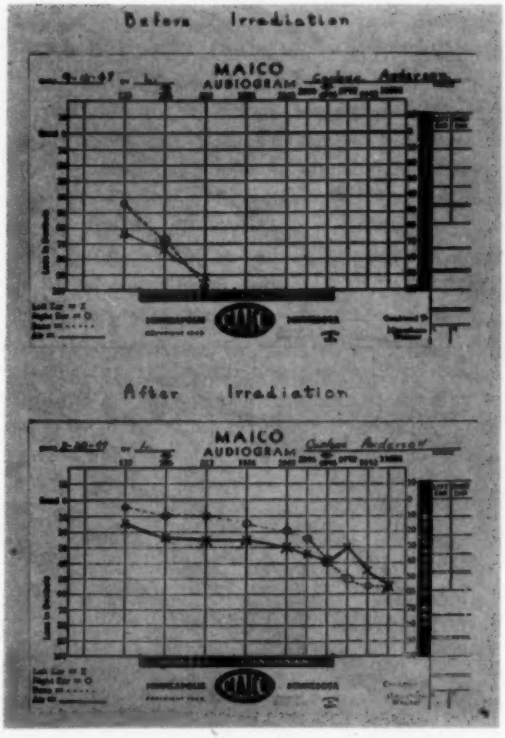
This patient is also a different individual after irradiation.

Slide X



Note the return to absolute normal hearing in this case.

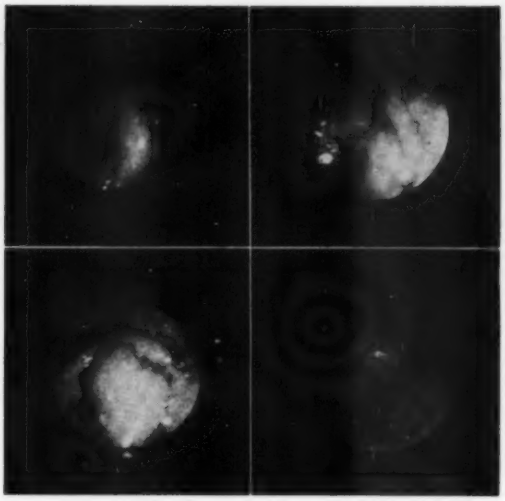
Slide XI



The results obtained in this six-year-old child are beyond my conception. She was brought into the office from the Arizona School for the Deaf and Blind. Her mother stated that she had had normal hearing for a period when she was two years old. When first seen this child gave no indication of being able to hear. It was impossible to understand her attempted speech. She was given irradiation at the insistance of her desperate parents. When last seen, her speech had improved but she gave no evidence of being able to hear other than that as shown by the audiogram. It is my suggestion that in children showing complete or a great loss of hearing, they be given a routine nasopharyngoscopic examination. A valuable survey could best be done in the larger centers where there are proper facilities.

All of these cases are children between eight and twelve years of age. Their parents are, of course, delighted, and t he personaliy changes seen in children who have had their hearing restored to normal, or near normal, are a delight to behold. It would seem a crime to withhold such treatment from a child with a loss of hearing who has evident pathology about the tubal orifice.

Slide XII



Bearing in mind that the hearing loss in these children was the result of variation of pressure within the middle ear due to the malfunction of the eustachian tube, is it not reasonable to assume that individuals having other types of aural symptoms associated with blocked tubes should also be benefited by this type of treatment?

In all types of cases the irradiation is used along with all other therapeutic measures that may be helpful in each individual problem. Alone, it is not a specific, but its role as an adjunct in the control of the infected hyperplastic lymphoid tissue in the nasopharynx is assured.

Due to the large scope of this subject it is necessary that I move rapidly along, stating the exact rationale employed in each group.

For instance, study the slide before you and you cannot help but realize that reduction of this offending tissue must be appreciated as being one of the most fundamental and essential measures in the treatment and prevention of acute, recurrent, and chronic otitis media.

Radium was applied to the lymphoid tissue about the tubal orifices of an attorney in Tucson who was so dizzy that he was literally falling out of his chair. He had been treated for Meniere's disease for six months without relief. Following irradiation, the vertigo vanished and he has had only one attack during the past twelve months. My theory in this case was that the tissue would be reduced by the application

of radium, the orifices permitted to function normally, the tubes would become patent, the air in the middle ear become equalized. and normal function return, thereby removing the etiological factor of the vertigo.

Thirty-two additional patients with a similar complaint have been given this type of treatment, twenty-two of whom have obtained complete relief, and five have been greatly modified.

Patients came to the office complaining of a "thumping" sensation in their ear, corresponding to their heart beat. My realization that the pulse is determined by palpating the force of the heart beat against a digital compression of the radial artery led me to believe that a narrowing of an artery in the region of the eustachian tube could cause such a thumping sensation in the ear. Of 18 cases who had offending tissue, which could cause an arterial compression, 12 have been completely relieved and six improved.

The annoying "clicking" or intermittent closure of the ears is usually the manifestation of poorly functioning eustachian tubes. Such subjective findings may occur without apparent cause but are usually noted on change of altitude. This group, along with the group of individuals who use air travel as a means of transportation, and are subject to aerotitis, can be relieved as shown by the results obtained in a project conducted in the AAF during World War II (aerotitis is otitis media resulting from change of altitude while in flight).

I was fortunate in being one of the original group of twelve flight surgeons called into Baltimore by the Air Surgeon's office to study the problem of aerotitis under Dr. C rowe. Aerotitis was crippling the activities of the Air Force more than any other physical lmpairment resulting from flying.

During this study the nasopharyngoscope was used in the examination and evaluation of 14,345 personnel, under Dr. Crowe's supervision. 6,881 were selected for treatment and a total of 14,045 treatments given. 640 cases were given the entire course of treatment and followed for an additional 30 days.

In preparing the preliminary report of this project for the Air Surgeon, I was amazed to find that the various reports ran practically parallel. There was only a 3% variation in the percentage of men reported as having less difficulty in ventilating their middle ear following irradiation of the nasopharynx. These reports were sent in by independently operated units throughout this country and overseas.

Dr. Crowe, myself, and three other officers summarized the study and found that of the 640 flying personnel who had had malfunction of their eustachian tubes in flight, 87% had less difficulty in ventilating their ears following irradiation. (Annals of Otology, Rhinology and Laryngology, December, 1945.)

Of these 640 cases I was responsible, on an overseas mission, for the completion of 146 cases. This work was done under combat stress. In order to permit combat efficiency, treatments were administered regardless of the presence of acute infection. It was my observation that the use of radium in the nasopharynx in the presence of an acute upper respiratory infection or otitis media caused no unfavorable reaction. These acute cases returned to combat duty with very little loss of flying time. I have since observed that the convalescent period in acute infectious cases has been shortened following treatment.

In leaving the subject of malfunction of the eustachian tube I wish to remind you that the nasopharyngoscopic examination is necessary because a small amount of tissue may be malignant by position and cause a great deal more trouble than a much larger centrally located mass.

Your attention is called to the accepted medical opinion regarding the importance of infected tonsils and adenoids as an active foci of infection. Removing a focus of infection by tonsillectomy can be as complete as extracting an abscessed tooth. It is absolutely impossible to remove all adenoid tissue surgically. I, along with others, believe the nasopharynx to be one of the most frequently overlooked and treacherous foci of infection we have to deal with. The folds and crevices in this tissue not only harbor organisms which are responsible for various chronic and recurrent systemic disorders, but are perfect receptacles for any irritating substances entering the upper respiratory tract. The irradiation reduces the lymphoid tissue and in so doing smoothes out and eliminates these infected pockets.

Children having a history of low-grade, unexplained temperature, chronic or recurrent nasopharyngitis, seizures of acute upper respiratory infections with a marked elevation of temperature, persistant cough, or chronic laryngitis should be given a careful nasopharyngoscopic

examination, and if infected lymphoid tissue is present the use of radium should be seriously considered. One hundred thirty-six cases of chronic nasopharyngitis were treated, and of these 109 were relieved of all symptoms relative to the nasopharynx.

The proper management of the nasopharynx in these cases may do a great deal in the prevention of acute rheumatic fever, the control of active cases, and act as a possible factor in the prevention of flareup in quiescent cases.

Arthritics having a streptococcic infection harbored within this lymphoid tissue should be considered as likely candidates, since this focus may likely be a contributing factor.

We have been dealing with infected tissue and its ill effects. May I discuss one more phase, and that is the results of local irritation to the nerve centers located in this area. These centers are separated from this inflamed tissue by only a very thin plate of bone. Dr. Lindsay Beaton, of Tucson, called my attention to this fact. With this in mind, irradiation was given to a group of patients who had multiple complaints relative to their ears, throat, neck and possible occipital headaches. The complaints varied in each instance from the utmost severity to the very mildest. The majority of these patients have been completely relieved of most, if not all, of their symptoms.

The infection contained in the nasopharynx is a constant source of irritation to an existing allergic nasal membrane, especially in children. Irradiation is used as a therapeutic measure in these cases to remove this source of irritation, and also aid in the elimination of a frequent spuree of purulent ethmoiditis which is so often seen in allergic individuals.

It is generally assumed that infections in the nose or throat are an etiological factor in asthma; hence, is it not reasonable to assume that an infected nasopharynx could be the "trigger-like mechanism" responsible for instigating asthmatic attacks?

Dr. A. T. Ward, Jr., of Johns Hopkins reports that 25% of thirty-odd children received complete relief from asthma following the use of radium, and another 25% were greatly relieved. My observation of results in the treatment of asthmatic children having allergic nasal membranes, chronic sinusitis, and infected hyperplastic tissue in the nasopharynx, convinces me that Dr. Ward has made a most conservative estimate of his results.

During the past four years I have given 3,650 treatments to 750 patients, and a study of the results obtained thoroughly convinces me that the use of radium in the nasopharynx shares an equally important position with the most recent advances in chemotherapy in the control of this incipient and often vicious focus of Infection.

Since all systemic and local therapeutic measures were used in conjunction with radium, it makes it mathematically and clinically impossible to obtain a precise set of facts and figures to show results of irradiation in infectious processes—but:

Slide XIII

1. Generalized disturbances relative to the ear, throat, neck and head have been benefited.
2. Relief has been given to asthmatic and allergic children.
3. Many chronic and recurrent attacks of nasopharyngitis in children, as well as in adults, have been brought under control.
4. The removal of this active focus of infection by irradiation has been an effective aid in the control of systemic disturbances.

Now, the following statements are made without reservation. No such positive conclusions can be attributed to irradiation alone—again, Gentlemen, this type of treatment must be supplemented with chemotherapy. With this assistance, irradiation is practically a specific form of treatment in the majority of cases where there is malfunction of the eustachian tube.

Slide XIV

1. Certain types of vertigo and other oral symptoms such as a throbbing sensation in the ear can be relieved.
2. It will not restore an established hearing loss in adults, nor will it relieve tinnitus.
3. It has been proven to be an effective aid in the control of aerotitis.
4. The photographs of the compressed tubal orifices are convincing that this type of treatment is indicated in the control of otitis media.
5. In cases of hearing loss in children the audiograms speak for themselves.

ELECTRO-ENCEPHALOGRAPHY
Its Place In Neuro-diagnosis

JOHN RAYMOND GREEN, M. D.

HISTORICAL ASPECTS

THE first step toward modern electro-encephalography began with the observance of electrical fluctuations from the brain of rabrabbits in 1875 by an Englishman, Caton[2] who believed them to be related to the functional activity of the brain.

The development of the Einthoven string galvanometer in 1906 was a tremendous improvement over the former types of recording instruments and was utilized for the first time for brain studies by Neminski[9]. It is strange that neuro-physiologists and clinicians interested in the subject should overlook the important possibility of studying the electrical component of brain activity until 1933—except for Hans Berger. His animal work covered the period from 1902 until 1924, when he recorded electrical activity from the *human* brain. Despite incredulous colleagues, he continued and by 1934 had demonstrated, without question, that the human brain has a definite electrical beat originating in neurones (not connective tissue or blood vessels), changing with age, sensory stimulation and with the bodily physio-chemical state[1]. Berger is generally regarded as the father of electro-encephalography.

During the past fourteen years certain workers have made remarkable contributions, notably Walter[11] in the localization of intra-cranial lesions, Gibbs, Gibbs ,and Lennox[8] in epileptic disorders, and others too numerous to mention. Only one complete text has been published on electro-encephalography (Gibbs and Gibbs)[6] although a valuable chapter has been written by Jasper in a textbook on Epilepsy and Cerebral Localization[10], and the current medical and medico-legal literature shows increasing volume.

At the present time, electro-encephalography offers a valuable diagnostic adjunct in the field of epilepsy and similar states and in many types of organic brain pathology. The role it plays for the neuro-psychiatrist and neuro-surgeon is comparable to that of electro-cardiography for the internist.

Presented to the Arizona State Medical Association Convention, Phoenix, May 21, 1948.

INTERPRETATION OF THE EEG

To recognize what is abnormal and what is normal, what is artifact and what is real, requires some natural ability, but mostly training. The electro-encephalogram is not the same in any two persons and the electrical activity of the brain of the same individual varies from moment to moment, with age, with menses, and with sleep and waking states. It also takes considerable experience to distinguish between waves that originate in the brain and those that come from extraneous sources.

The EEG exhibits a wide range of wave patterns (Fig. 1 : Gibbs Classification).

A. *Normal Activity:* The dominant frequency is not slower than 8½ sec. or faster than 12 sec. There are no seizure discharges and no significant fast or slow activity. The record is classified according to the predominant frequency if the frequency varies from lead to lead or from time to time.

Low voltage fast (L.V.F.) activity, usually with an amplitude less than 20 micro-volts, no countable frequency and predominantly fast waves, is within normal limits.

B. *Abnormal Activity:* This may be paroxysmal, fast or slow, focal or non-focal.

I. Paroxysmal records include those in which clearly evident seizure discharges of high voltage waves of a distinctive pattern are present in any lead, and include (1) paroxysmal slow records, (2) paroxysmal fast records, and (3) paroxysmal spike seizure discharges.

(1) *Paroxysmal slow records include:*

(a) *Petit Mal Variant* (PMV) : 2/sec. alternating wave and spike patterns

(b) *Petit Mal* (PM) : 3/sec. alternating wave and spike patterns, as seen in clinical petit mal epilepsy.

(c) *Psychomotor type* (Psy) : Paroxysms of flat topped 4/sec. waves, together with high voltage 6/sec. waves or discharge of irregular positive spikes, appearing in a pattern previously free from such activity

and in all leads except the temporal. The temporal and particularly the low anterior temporal leads, one side or both, usually show a flattening of activity and a negative spike seizure discharge best seen during drowsiness and sleep.[3, 5]

(2) *Paroxysmal fast records*

Grand Mal type (GM): This pattern occurs in a clinical grand mal attack and consists of discharges of fast activity (12 - 35/sec. of increasing amplitude. The paroxysm must last longer than 3/sec. if the voltage is below 50 micro-volts, and longer than 1/sec. if the voltage is above 50 micro-volts, in a record having relatively no such activity previously. The record is classified as fast when the dominant frequeney is continuously fast or when repeated bursts of fast activity occur without change in voltage.

(3) *Paroxysmal spike seizure discharges:*

Spike seizure discharges (Sp) may consist of widely separated multiple of single, negative, positive or diphasic spikes. One classifies a record which shows discharges lasting more than one

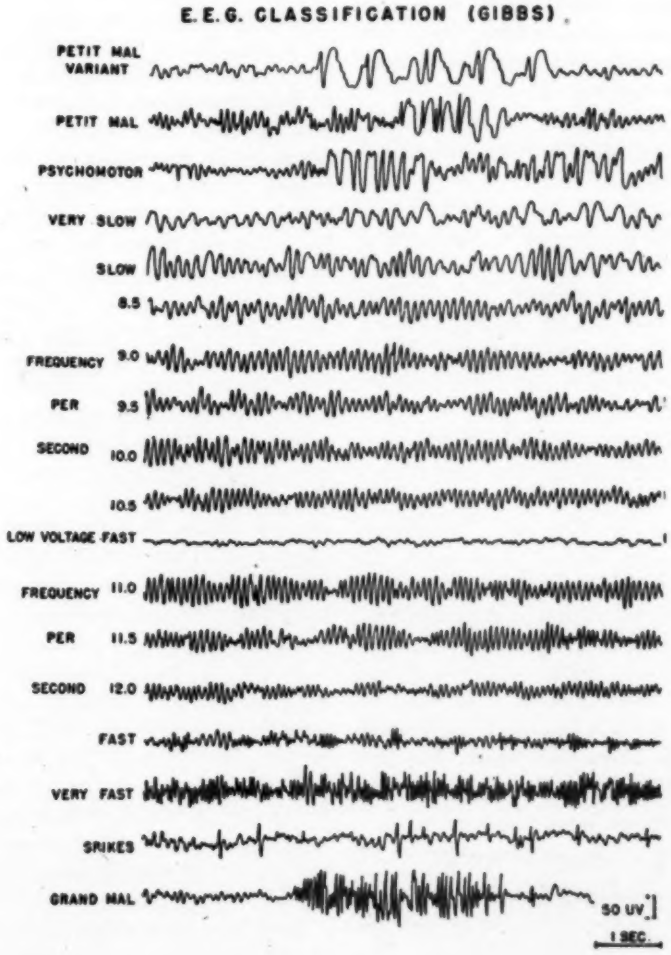


Fig. I

Note: It should be emphasized that these are sample tracings from a single channel in each case. Synchronous readings from many areas of the cortex (4-8 channels simultaneously) are essential.)

second as fast or as grand mal, depending on the voltage, duration, and on whether it is more or less continuous.

II. Fast records may be classified as:

(1) *Slightly Fast:* (F-1), in which there is a moderate amount of activity faster than 12/sec., or

(2) *Very Fast:* (F-2), in which there is a large amount of activity faster than 12/sec.

The amount in each case is evaluated in terms of the frequency and amplitude of the activity, the number of leads in which it appears, and the percentage of the time it is present.

III. Slow records may be classified as:

(1) *Slightly Slow* (S-1), in which there is a moderate amount of activity slower than 8½/sec. in any lead, or

(2) *Moderately Slow* (S-2), in which there is a great amount of activity slower than 8/sec. in any lead, and

(3) *Very Slow* (S-3), in which there is an area of irregular slow waves with a frequency of 1½ - 2/sec. The amount in each case is evaluated as described above for fast records. One classifies a record which contains a mixture of fast and slow waves according to the predominating activity.

IV. *Focal Abnormality* is noted if the activity in a particular cortical area is consistantly at variance with that obtained from other cortical leads. Different kinds of gross lesions cause much the same abnormality, and so the EEG does not indicate the nature of the pathology. The most reliable focus is one of irregular ½ - 2/sec. waves—the S-3 focus. The next most reliable is a focus of spikes. A definite amplitude asymmetry suggests a lateralized lesion, but this type of focus is usually unreliable for localization.

CLINICAL CORRELATIONS

Electro-encephalography is ideally suited as a diagnostic adjunct for the evaluation of *epilepsy* and certain types of *organic brain disease*. The method occasionally proves to be useful as a source of additional evidence in certain medical conditions (i. e. Addison's disease, hyper-insulinism, diabetes mellitus, and thyroid disease). It has only negative value in schizophrenia, manic-depressive psychosis, feeble-mindedness, psychoneurosis, hysteria, migraine and absence of brain substance—being within normal limits.

Epilepsy

The development of the EEG during the past decade has provided information about epilepsy and related disorders on a scale comparable to the EKG in heart disease.

With the EEG, both clinical and frequently sub-clinical seizures can be detected, and it is possible to subclassify the various types of epilepsy. Epilepsy is not a single, uniform disorder —a single patient may show several types of seizure discharges—and the medications available at present are not equally effective against all types. Thus, Dilantin, Mebaral, Phenobarbital, and Mesantoin usually benefit generalized or focal convulsions and usually aggravate Petit Mal epilepsy. Phenobarbital benefits convulsions, rarely prevents Petit Mal, and often increases Psychomotor seizures (psychic equivalents). Tridione seems specific for Petit Mal but commonly aggravates convulsions. There is no effective drug therapy for Psychomotor Epilepsy although all the medications are usually tried. Although many cases of epilepsy, therefore, can be adequately managed on the basis of the clinical symptoms, electro-encephalography offers a classification of these cerebral dysrhthmias, also indicating rational and effective therapy in many previously unmanageable patients. It is likely that the large and previously unmanageable group, classified as Psychomotor Epilepsy, may be benefitted or cured by neuro-surgical extirpation of the spike seizure focus in a temporal area, unrecognized until the recent work of Gibbs and co-workers.[3]

Recent studies (Gibbs, et al[5]) have shown that *sleep* is the ideal condition for EEG study of patients with epilepsy. 85% of epilepties show seizure discharges during sleep, whereas only 30% do so during their routine waking records. Discharges of the psychomotor type are particularly prone to be absent in the waking record and to be present in the sleep record—being focal in the temporal area in 98% of the cases.[3]

Epilepties as a group (the incidence is 0.5% in non-institutionalized adults), differ from non-epilepties particularly regarding the *paroxysmal* EEG patterns. Paroxysmal records are 33 times more common among epilepties than in normal

controls. Very slow and very fast EEG are about 20 times as common among epileptics as among controls. Moderately slow or fast records are consistent with the diagnosis of epilepsy, but do not suggest the diagnosis in themselves. Frequently one must determine whether a given EEG pattern will be associated with clinical epilepsy. The chances are 16⅔% that an individual with a paroxysmal EEG is a clinical epileptic. The incidence of clinical epilepsy among near relatives of epileptics is 2.4%. The chance that an atypical epileptic attack is really epilepsy is approximately 50%. The incidence of epilepsy following severe head injury is approximately 20%. Thus, by classifying a given person accurately as possible regarding his own particular incidence of epilepsy, it becomes possible to state more accuratetly whether his paroxysmal EEG will probably be the precursor of clinical epilepsy, or whether the entity is entirely sub-clinical.[7]

Cerebral Trauma: — medico-legal aspects of electro-encephalography.[4]

EEG abnormalities are greatest soon after the injury and tend to subside within a few days or weeks unless epilepsy develops. About 65% of all post-traumatic epilepties have their first convulsion within one year of their head injury. The importance, therefore, of serial EEGs in accident cases is obvious because of the definite relationship between head injury, EEG abnormality, and epilepsy. If a focus of irregular slow waves or of spikes is formed in a particular cortical area following head injury, it is almost certain that the blow caused the brain damage. If repeated examinations show that the abnormalities are persisting or becoming worse, and especially if paroxysmal disorders appear, epilepsy is imminent. If the symptoms and EEG changes subside and disappear rapidly, the outlook is excellent for full recovery without residual damage. However, if the EEG becomes normal, and the symptoms of brain damage persist, the prospect for full recovery is poorer, because it indicates probable neuronal degeneration. Complete destruction of brain substance causes no effect on the EEG unless it is accompanied by injury to neighboring areas with accompanying disorganization of the normal electrical activity.

Accordingly, the longer the final settlement of a case of severe head injury is delayed, the more accurately the extent of the injury and its sequelae can be predicted. Electro-encephalography is frequently essential in such evaluations.

Psychiatric Problems

Electro-encephalograms are usually quite normal in psychiatric disorders (Gibbs[4, 6, 7]) One may assume the patient is *malingering* or is *hysterical* if an EEG is made during a convulsion and no significant changes are observed. Paroxysmal records are invariably present during typical epileptic seizures.

Psychomotor epilepsy (psychic equivalents) is frequently classified clinically as *hysteria, psychopathic personality,* or *schizoid psychosis.* The epileptic personality is rare in patients with pure grand mal or petit mal seizures, but is common with psycho-motor epilepsy and it is now reasonable to attribute much of what has been termed the epileptic personality to seizure activity emanating from the anterior temporal areas.

The EEG may be employed in cases where irresponsibility is claimed because of an attack of unconsciousness during the commission of a crime. Criminals as a group have normal electroencephalograms.[4] Significant abnormality is likely to be found only where there is clinical evidence of epilepsy or related disorder, or where the defendant's behavior at the time of the crime was disoriented, or abnormally clumsy or careless, suggesting a clouded mental state.

Expanding Intra-cranial Lesions

This group includes neoplasms of the brain, abscesses, tuberculomas, and hematomas. Secondary epilepsy is frequent in these lesions, particularly with slow growing neoplasms and abscesses. By electro-encephalographic localization of the area of maximal abnormal slow waves, space-occupying lesions of the cerebrum are suspected. Seizure discharges are common in the neighborhood of expanding lesions. Correct EEG localization is possible in about 80% of all gross lesions (Gibbs).[7]

SUMMARY

1. A brief historical note is made about electro-encephalography.

2. Basic principles in the interpretation of normal and abnormal EEGs are reviewed.

3. Electro-encephalography and electro-cardiography are compared as invaluable adjuncts in the diagnosis of pathologic physiology of the brain and heart, respectively.

4. Electro-encephalography is almost ideally

suited as a diagnostic aid in epilepsy of various types and in cases of organic brain damage. The medico-legal aspects of electroencephalography are discussed.

910 Professional Building, Phoenix.

BIBLIOGRAPHY

1. Berger, Hans: Uber das Elektrenkephalogramm des Menschen. Allg. Ztschr. f. Psychiat., 108:254, 1938.

2. Caton, R.: The electric currents of the brain. Brit. Med. J., 2:278, 1875.

3. Fuster, B.; Gibbs, E. L., and Gibbs, F. A.: Anterior temporal localization of negative spike discharges during spontaneous or induced sleep. EEG in psychomotor epilepsy. Read at the 2nd So. Amer. Neuro-surg. Meeting in Chile, April 25, 1947.

4. Gibbs, F. A.: Medico-legal aspects of Electro-encephalography. The Canadian Bar Review, 24:359, 1946.

5. Gibbs, E. L., & Gibbs, F. A.: Diagnostic and localizing value of electro-encephalographic studies in sleep. Proc. Soc. Res. Nerv. & Ment. Dis., Dec. 1946.

6. Gibbs, F. A. and Gibbs, E. L.: Atlas of Electro-encephalography. Lew A. Cummings Co., Cambridge, Mass., pp. 221, 1941.

7. Gibbs, F. A. & Gibbs, E. L: Personal communications.

8. Gibbs, F. A.; Gibbs, E. L. & Lennox, W. G.: Epilepsy; paroxysmal Cerebral dysrhythmia. Brain, 60: 377, 1937.

9. Neminski, W. W.: Ein Versuch der Registrierung der elektrischen Gehirnerschinungen. Zentraibl. f. Physiol., 27:951, 1913.

10. Penfield, W.; & Erickson, T. C.: Epilepsy and Cerebral Localization (Chapt. 14, 380-454, Electro-encephalography, by Herbert Jasper). Chas. C. Thomas Co., Springfield, Ill., 1941.

11. Walter, W. G.: The location of cerebral tumors by electro-encephalography. Lancet, 2: 305, 1936.

A NEW MEDIUM FOR HYSTEROSALPINGOGRAPHY

M. JAMES WHITELAW, M. D.
Phoenix, Arizona

THE injection of fluid into the uterine cavity as well as the fallopian tubes was reported as early as 1869 by Chassinat.[5] His patient took a douche under increased pressure so that the fluid entered the peritoneal cavity.

It was not until 1910 that the first attempt was made to visualize the female genitalia. Rindfleisch[29] using bismuth as a radiographic medium demonstrated partial filling of the tubes. Douay[10] is quoted as saying that Le Lourier in 1912, reported on using a solution of colloidal silver. Dimier[9] in 1913, working under Pozzi in Paris, used a 10% solution of Collargol to visualize the uterus. He never completed his series of cases due to the demise of one of his first patients with peritonitis. Because of the war his paper was not published until three years later. In the United States, Cary[4] in 1914 first used this substance to test tubal patency. A few months later Rubin[32] published his paper on the value of Collargol to outline the uterus. This medium soon was abandoned as it had been demonstrated that it might cause obstruction in previously normal tubes by remaining inspissated within the lumen, and furthermore it caused marked peritoneal irritation. Thorium nitrate, sodium iodide, sodium bromide, and bismuth paste were utilized in rapid succession. They all proved unsatisfactory due to the severe reactions they engendered, as well as their poor radiographic contrast. There then followed the period of iodized oil as exemplified by lipiodol, a chemical compound of poppyseed oil and 40% pure iodine, originated by Lafay[19] in 1902. It was used extensively in 1921 by Sicard and Forestier.[36] Heuser[15] used it at about the same time for tubal patency. Other iodized oils have been tried.

Although these preparations are stable, do they meet the tenets of an ideal radiographic medium as first expressed by Neustadter?[24] 1: The medium must be totally innocuous to the organism as well as to the reproductive tract. 2: It must possess that degree of resorbability which shall enable it to disappear from the system rapidly and completely, after it has accomplished its diagnostic purpose, leaving no residue; and 3. It must have proper viscosity.

As for the first tenet, iodized oil has on numerous occasions been forced into the venous sinuses and from there into the uterine and ovarian veins. Beclere,[7] Breitlander and Hinrichs,[3] Meaker,[22] and Zacharin[50] all have reported the accidental introduction of lipiodol into the ovarian veins. There has been ample evidence in humans of pulmonary embili[17, 20, 30] which have in some cases been fatal.[11, 13, 48] Wong, Wu and Chien[49] killed rabbits weighing 1½ to 2 kilograms by intravenous injection of lcc of lipiodol. Hartgraves[14] was unable to obtain these results. It has been stated that under direct fluoroscopy, injection into the sinuses can be avoided. This is not true, for at the moment that one sees evidence of invasion of the sinuses the oil already is within the lumen.

Evidence has accumulated to demonstrate conclusively that iodized oils may elicit foreign body reactions. Ries[28] found extensive adhesions between the peritoneum, omentum, uterus, and

Presented at the Arizona Medical Association meeting May 21, 1948.

bladder, which on being freed revealed sterile walled-off cysts. In the microscopic section of the tubes a large number of giant cells was seen within the homogeneous, greenish granular masses. J. Novak[26] and Lash[18] both have reported the production of a foreign body reaction within the pelvis produced by lipiodol. It has been shown by the author[45, 46] and others,[33] that if strictures or adhesions should be present in or around the fallopian tubes normal peristalsis is markedly interfered with, so that it is diminished or even absent. It would follow therefore, that under such conditions, the oil remaining inspissated within the tubal lumen might effectively close the tube permanently, thereby artificially producing permanent sterility. The above reasons are why the author[47] takes his stand with Rubin,[25] Rock,[31] Titus[40] and others in condemning the use of routine salpingography for the study of sterility.

We all have had ample evidence by x-ray that iodized oil remains for months within the peritoneal cavity. (See Fig. 1.) I had the good fortune of working with Schultz[37] of the Frauenklinik Berlin, who demonstrated this fact at laporatomies, done as long as 60 days after salpingography. In every case of occluded tubes oil still was within the lumen. In every other case he was able to find a residue of the contrast oil in the form of a fatty film on the posterior surface of the uterus. In seven cases foreign body reactions were found on the posterior surface of the uterus, In seven cases foreign body reactions were found on the posterior surface of the uterus, broad ligament and the lateral peritoneal wall. Rabbiner[27] has demonstrated lipiodol's presence within the pelvis as long as one year after injection.

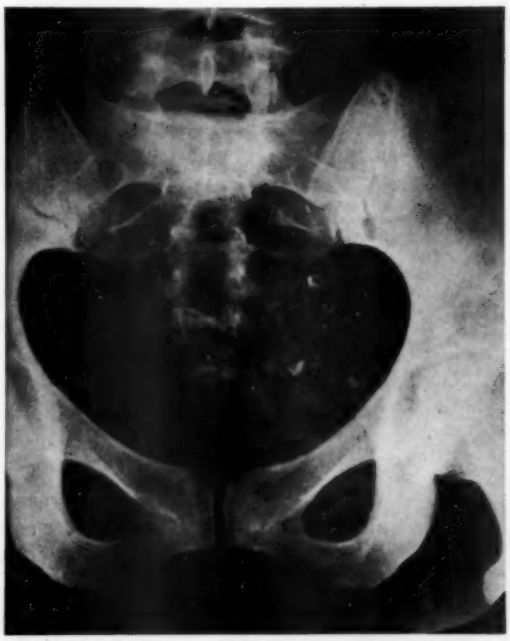


Fig. 1. Roentgenological evidence of lipiodol within pelvis 5 weeks after injection. Diagnosed at hysterosalpingography as tubal occlusion. Rubin Test revealed normal Tubes. Patient subsequently became pregnant.

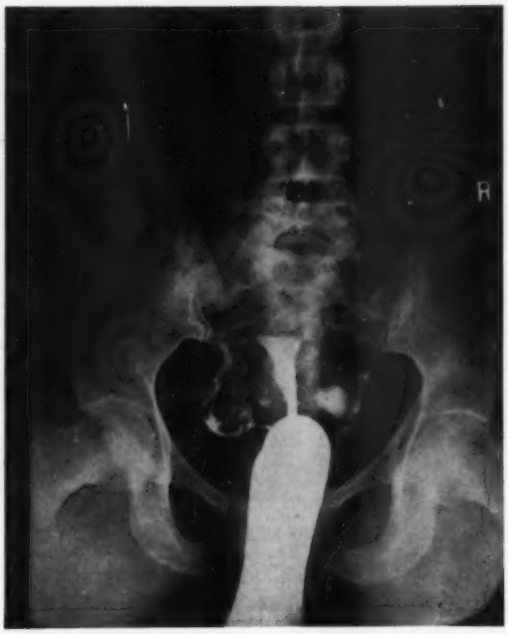


Fig. 2. Hysterogram showing evidence of spill. This case had had 3 negative Rubins.

Because of these reasons vide supra, a constant search has been underway in an endeavor to meet Neustadter's desiderata.

Diodrast and hippuran were used, but because of their rapid elimination from the genital tract into the peritoneal cavity, pathiological lesions of the uterus were overlooked. It became evident that some compound would have to be added to increase the viscosity of the crystalline iodine structure. Neustadter[24] et al tried 50% glucose, while Titus[41, 42] and his co-workers reported on skiodan and gum acacia in a 25% concentration. Rubin[34] suggested adding a 50% solution of Rayopake (diethanolamine salt of 2-4 dioxo-3 Diodo 6 metyl tetrahydropyridine ascetic acid)

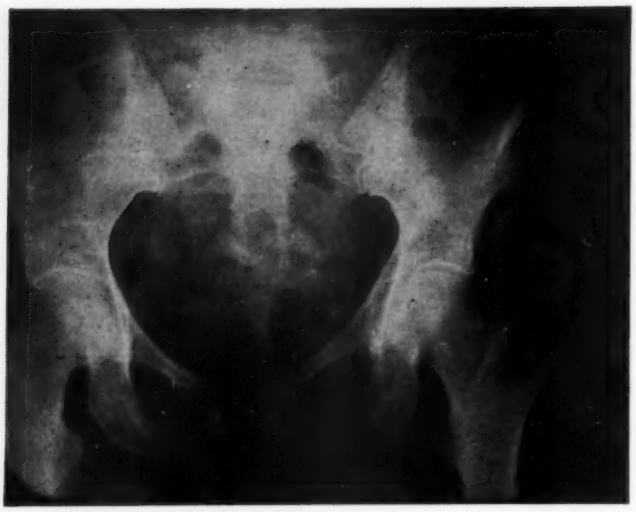


Fig. 3. Same as Fig. 2, one hour later, showing complete absorption of the medium.

and a 4.8 concentration of polyvinyl alcohol. The iodine content is about 15%. This substance is soluble in water. It is rapidly and easily eliminated and it has enough viscosity to outline and fill the uterine cavity. It has been shown in animal experimentation to be relatively non-toxic. Norment,[25] Montgomery and Lang,[23] Goldberger,[12] Marshak[21] and others[1, 43, 44] all have reported excellent results with this medium.

*Material**

This report is based upon Rayopake studies done on 136 private and charity patients by the author over the past five years. It may be divided roughly into three categories: Those showing the stigmata of tubal occlusion as evidenced by three negative Rubin tests; that group which had as their main complaint menorrhagia or metrorrhagia or both; and a small miscellaneous class. The contraindications were:

1. Infections of the genital tract
2. Pregnancy
3. Routine tubal patency test
4. Very active bleeding.

Technique

The patient is instructed to take a cathartic the night before the examination and an enema in the morning. A bimanual examination is done previously to determine the size and position of the uterus as well as the condition of the external os. A bivalve, preferably nonopaque, speculum is introduced, the cervix exposed and cleansed with iodine and alcohol. If the external os is gaping a tenaculum must be used on the anterior lip so that the rubber acorn of the flexible plastic tip cannula fits tightly. It may be necessary to substitute a Colvin type screwtip[6] because of cervical dilation to prevent leakage of the Rayopake. A 20cc syringe containing 10cc of Rayopake is fitted to the end of the cannula. In all cases of uterine bleeding a manometer is employed, the pressure being kept below 140mm of mercury, and the following procedure used; 2cc of the dye is injected slowly under floroscopy and a picture taken; this procedure is then repeated until the uterine cavity is filled. It rarely takes more than 6cc of medium. It is best to avoid unnecessary pelvic spill as at times it may be painful. This fractional method of injection was first suggested by Hyams[16] and is an essential part of the technique to demonstrate intrauterine lesions. If the uterus were directly filled uterine pathology might be missed. The Rayopake then is aspirated and 20cc of CO_2 is introduced and another x-ray made, for linear delineation of the uterine cavity and its irregularities. Artifacts produced by bubbles are to be avoided.

Where the point of tubal blockage alone is sought, the uterine cavity is filled slowly under fluoroscopy and then 4cc more of the Rayopake is injected. Two pictures then are taken five minutes apart.

*I wish to thank Dr. Floody of the Medical Department of Hoffman LaRoche for the generous supplies of Rayopake used in this study.

Two modifications of this technique may be used. A pneumoperitoneum may first be produced either by insufflation (the contraindications being understood) from below, or by the direct introduction of Co_2 after which the radiopaque medium is used. This method was described first by Stein,[38, 39] and gives one an outline of the ovaries as well as the serosal surface of the uterus, plus the delineation of the uterine cavity. The second method is serial x-ray of the uterus during its evacuation as described by Dalsace.[7] The author has had no experience with the latter modification.

The exposure used for the average patient, the distance from the source of irradiation being 30 centimeters, was 60 milliamperes and 115 volts for a 3-second exposure.

RESULTS

Of the 64 cases of tubal occlusion as demonstrated by the Rubin Test, 62 were confirmed and the point of block noted. In two cases the Rayopake passed through both tubes.

In 25 cases of menorrhagia uterograms were positive in 10 cases, and six had submucous fibroids, one of which was treated by myomectomy, the others by hysterectomy; three had polyps, one of which was multiple, all of which were removed by curretage; and one patient had an adenomyoses with generalized uterine enlargement treated by hysterectomy.

Thirty-nine cases of meno-metrorrhagia and metrorrhagia showed in 14 instances the following lesions: 5 submucous, 3 intramural, and 3 intramural and serosal fibroids, 1 showed serosal fibroids and 2 polyps, both of which were single. In the miscellaneous group comprising eight cases, two patients had an endocervicitis, one a bicornuate uterus, and of five patients who were examined whose chief complaint was dysmenorrhea, one was found to have intramural fibroids. In 32 cases in which negative x-ray findings were obtained curretments were done. In one case an early corpus carcinoma was found.

There was no evidence in this whole series of cases of toxic results to the medium used. In every instance where x-rays were made one hour after the tubes were visualized, no trace of the medium was seen. This was true also for the few cases in which peritoneal spill took place. No accidental introduction of the medium into the sinuses was noted in our series, but it has been reported.

DISCUSSION

It is clearly evident from the more than one thousand cases in which this medium has been used that it is far superior to the iodized oil which has been utilized up until now. In the study of tubal occlusion it is well to realize that our main purpose is to be able to aid those patients who have a block in becoming pregnant. Rayopake is ideally suited for this type of localization study as absorption takes place within a relatively short period of time. If salpingostomy is indicated, our chances of success would natur-

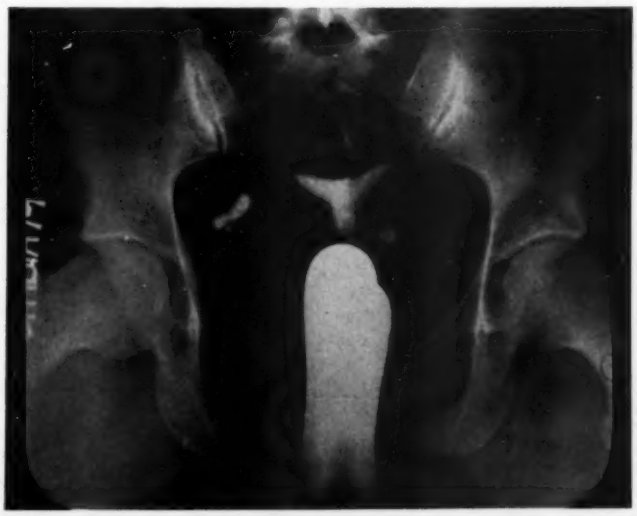


Fig. 4. Bilateral occlusion of the Fimbria Salpingostomy done.

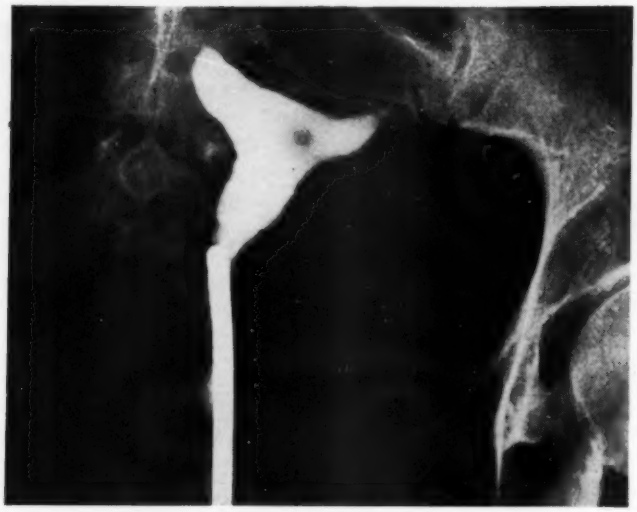


Fig. 5. Endometrial Polyp.

ally be higher if a non-irritating, quick-absorbing medium is used. Iodized oil does not meet this specification. Although in two instances it was possible to prove patency of the tubes by injection of Rayopake, this is not felt to be an indication for substituting this method for routine sterility study.

It is a well-known fact that inability to get spill on x-ray film is not conclusive evidence of tubal occlusion. It is not too infrequent that one non-patent and one patent tube is diagnosed in the same individual by radiographic methods, only later to be proved that the non-patent tube actually was open. Furthermore, it has been amply demonstrated that there may be at times difficulty in the interpretation of x-ray films. Spill is sometimes thought to be seen when in reality the whole length of the tube is shown with some dilation of the ampulla and blockade of the fimbria. It is obvious that repeated injections of radiopaque medium with the concomitant exposure of ovaries to repeated small doses of x-ray could possibly have a deleterious effect on normal function. It might furthermore be pointed out that, theoretically, this might lead to malformation of the third generation as has been shown in lower forms.

There has been, as Dalsace[5] puts it, a laissez-faire attitude toward gynecological radiograph. In any examination of the causes of vaginal bleeding, uterography deserves a high place in the armentarium of test procedures. This series of cases indicates, as has been pointed out many times by others, the ease and simplicity of this method in demonstrating uterine pathology.[44] We all have had occasion, as in cases presented here today, to see patients who have had repeated D. and C.'s only to show at hysterectomy endometrial polyps. It is surprising how often submucous and intramural fibroids are overlooked.

SUMMARY

1. Iodized oil when used for salpingography has been followed frequently by chemical irritation which has persisted for indefinite periods. This has, in instances, led to acute and chronic peritonitis.

2. Rayopake in 136 cases was found to be non-toxic and superior to iodized oil.

3. Rayopake is rapidly and completely absorbed within one hour after injection.

4. It gives good radiographic contrast.

5. It is a useful adjunct in the study of a restricted group of sterility patients who have been shown previously to have tubal occlusion by the Rubin test.

6. It has proven to be especially valuable as an aid in the diagnosis of vaginal bleeding.

412 W. Roosevelt St.

REFERENCES

1. Bernstein, P., Hysterosalpingography, a Routine Aid in Gynecological Diagnosis. Am. J. Obst. & Gynec. 48: 189-199, Aug. 1944.

2. Beclere, C., A propos des injections vascularies accidentelles au cours de l'hysterosalpingographie. Bull. Soc. d'Obst. et de Gynec. 22:31-36, Jan., 1933.

3. Breitlander, K. and Hinrichs, A. Lungenembolie nach Hysterosalpingographie mittels Jodipin-reaktionsloser Verlauf, Zentralbl. f. Gynak. 65: 124-129. Jan. 1941.

4. Cary, H., Note on Determination of Patency of Fallopian Tubes by Use of Collargol and X-ray Shadow. Am. Jour. Obst., 69:462-464, 1914.

5. Chassinat, R., Permeabilite des trompe uterines. Mem. et comp. rend. Soc. d. sc. med. de Lyon. 2:84. 1869.

6. Colvin, E. D., New Types of Cervical Applicators for Tubal insufflation in uterosalpingography. Am. J. Obst. & Gynec. 37:168-169, Jan., 1939.

7. Dalsace, J., Diagnosis of cause of metrorrhagia by means of hysterosalpingography. Bull. et mem. Soc. de med. Paris. 141:658-662. 1937.

8. Dalsace, J., Radiological study of uterine evacuation. J. Mt. Sinai Hosp. 14:175-183, Sept.-Oct., 1947.

9. Dartigues, and Dimier, Du diagnostic des affection uterines par la radiographe periuterine et endouterine. Paris Chirug. 8: 400-409, 1916.

10. Douay, E., La sterilite d'origine tubaire. Gynec. et Obst., 16:126-203, Aug. 1927.

11. Gajago, E., Ein im Anschluss an Hysterographie durch oelembolie verursachter todesfall. Zentralbl. f. Gynak. 55: 543-544, Feb. 1931.

12. Goldberger, M. A., The clinical evaluation of hysterosalpingography. J. Mt. Sinai Hosp. 10:241-249, May-June. 1943.

13. Hannon, T. R. Personal Communication.

14. Hartgraves, Thomas A. The use of iodized oil in roentgenography with animal experimentation. Am. J. Roentgenol. 46:360-375, Sept. 1941.

15. Heuser, C., La radiographie de l'uterus, des trompes et des Ovaries, avec ou sans Injection de Lipiodol, pour de Diagnostic Precoce de la Grossesse, de la Sterilite, de la Permeabilite des Trompes. Bull. et Mem. Soc. de Radiol. Med. de France, May, 1925.

16. Hyams, M. N. Uterosalpinography by interrupted fractional injections. Surg., Gynec. & Obst. 60:224-228, Feb., 1935.

17. Ingersoll, F. M., and Robbins, L. L. Oil embolism following Hysterosalpingography. Am. J. Obst. & Gynec. 53:307-311, Feb., 1947.

18. Lash, A. F., Lipiodol pelvic cysts. Surg. Gynec. & Obst. 51:55-60, July, 1930.

19. Lafay, L., Les huiles iodee et bromee. 80: (serie hebdomadaire v. 1) 540-551, 602-614, 804-915, 1903.

20. Lin, Y. Y., and Tsou, S. H. The Escape of Lipiodol in the Utero-Ovarian Venous System in Hysterosalpingography. Chinese M. J. 49:1241-1250. Nov., 1935.

21. Marshak, H. H. The Radiologic diagnosis of ectopic pregnancy. New York State J. Med. 46:317-318, Feb. 1946.

22. Meaker, S. R. Accidental injection of iodized oil into the uterine veins. Am. J. Obst. & Gynec. 28:568-571. Oct. 1924.

23. Montgomery, J. B., and Lang, W. Evaluation of a new contrast medium for hysterosalpingography. Am. J. Obst. & Gynec. 51:702-705, May, 1945.

24. Neustadter, T.: Ehrlich, D. E.; DuBois, J. C., and Bialock, G. R., A New Contrast Medium for Use in Uterosalpingography. Radiology, 21:568-572, Dec., 1933.

25. Norment, W. B. The use of a new contrast medium (Visco-Rayopake) in the female generative tract. Am. J. Obst. & Gynec. 49:253-260, Feb., 1945.

26. Novak, J., Salpingographie und Tubendurchblassung. Zentralbl. f. Gynak. 55:1449-1450, April. 1931.

27. Rabbiner, B. A comparative study of lipiodol injection and air insufflation in sterility. Am. J. Obst. & Gynec. 29:100-105, Jan., 1935.

28. Ries, E., Effect of lipiodol injection on the tubes. Am. J. Obst. & Gynec. 17:728-730, May, 1929.

29. Rindfleisch, Walter. Darstellung des oavum uteri, Berliner Klin. Wschnschr. 2:780-781, April, 1910.

30. Roblee, M. A., and Moore, S. "Lipiodol" pulmonary emboli following hysterosalpingography. South M. J. 38-89-94. Feb., 1945.

31. Rock, J., Conference on Diagnoses in Sterility. Charles C. Thomas, Springfield, Ill. 1946. p. 237.

32. Rubin, I. C. Rontgeniadognostik der Uterus Tumoren mit Hilfe von Intrauterine Collargol Injectionen. Zentralbl. f. Gynak. 38:658-680, 1914.

33. Rubin, I. C. Tubal strictures and their localization by means of uterotubal insufflation and the kymograph with notes on the comparative value of lipiodol. Am. J. Obst. & Gynec. 20:28-50, July, 1930.

34. Rubin, I. C. A new soluble viscous contrast medium for hysterosalpingography J. Mt. Sinai Hosp. 7:479-485. Jan.-Feb., 1941.

35. Rubin, I. C. Uterotubal Insufflation. C. V. Mosby. St. Louis. 1947. p. 363.

36. Sicard, J. A., and Forestier, J. Iodized Oil as Contrast Medium in Radioscopy. Bull. et mem. Soc. med. d. hop. de Par. 46:463-469. March. 1922.

37. Schultze, G. K. F. Gefahren und schaedigungen bei der Rontgen kontrast darstellung der weiblichen Genitalien Archiv. f. Gynak. 144:573-575, Oct. 1931.

38. Stein, I. F. Gynecography, X-ray diagnosis in gynecology. S. Clin. North America. 23:449-450. Feb., 1943.

39. Stein, I. F. Gynecography. J. Mt. Sinai Hosp. 14:634-645, Sept.-Oct., 1947.

40. Titus, P. Oil embolism from hysterosalpingography. Am. J. Obst. & Gynec. 53:1067-1068, June, 1947.

41. Titus, P., et al. A new, non-irritating opaque medium for uterosalpingography. Am. J. Obst. & Gynec. 33:164, Jan., 1937.

42. Titus, P., et al. A new, non-irritating opaque medium for uterosalpingography. Am. J. Obst. & Gynec. 36:889-897, Nov., 1938.

43. Warren, J. Hysterosalpingography with Visco-Rayopake. West. J. Surg. 54:294-299. July, 1946.

44. Wexler, D. J. The hysterogram in uterine bleeding. News letter of the Suffolk County Med. Soc., 24:80-82, Aug. 1946.

45. Whitlaw, M. J. Tubal contractions in relation to the estrous cycle as determined by uterotubal insufflation. Am. J. Obst. & Gynec. 25:475-484, April, 1933.

46. Whitelaw, M. J. Eileiter Bewegungen Diss. Fred. Wilhelm. Un. Berlin. 1934.

47. Whitelaw, M. J. Newer aspects of sterility. Arizona Med. (In Press.)

48. Williams, E. R. Venous intravasation of iodized oils during uterosalpingography. Brit. J. radiol. 17:13-17. Jan, 1944.

49. Wong, A. I. H.; Wu, C., and Chien, M. H. The escape of lipiodol into the utero-ovarian venous system in hysterosalpingography. Chinese M. J. 46:162-167, Feb., 1932.

50. Zacharin, D. Accidents in pyelography and hyterosalpingography: venous escape of radiographic contrast media, M. J. Australia. 2:449-450. Sept., 1933.

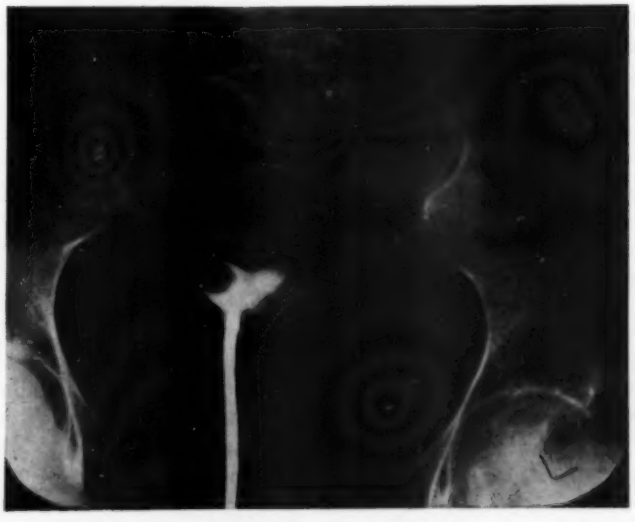


Fig. 6. Submucous Fibroid.

AGENESIS OF THE RIGHT LUNG IN EACH OF IDENTICAL TWINS

FLORENCE YOUNT, M. D.
Prescott, Arizona

THE case I wish to report tonight may be unique in all medical history. It is one of agenesis of the right lung in each of identical twins.

Identical twin sons were born September 4, 1947 to white parents. This was a first pregnancy. The father is suffering from advanced tuberculosis. The mother is well, and the pregnancy was normal and progressed without incident to term. The Kline was negative in both parents. The mother was Rh negative factor, the father Rh positive. The labor was normal and of about five hours duration. The first twin weighed 5 lbs. 7 oz.; the second twin, born seven minutes later, weighed 4 lbs. 1 oz. There was a single placenta and amniotic membrane. The first, and larger, twin had a small deformed right ear without a patent canal. There was a skin tab in the middle of the right cheek. He had a dextro cardia, but cried lustily, maintained good color and soon exhibited a ravenous interest in food.

The second twin was weak and limp. He had a short webbed neck such as one sees in congenitally elevated scapulae. He also had a dextrocardia. His respirations were feeble, and, while there was no marked dyspnea there was a definite rasp with every breath. He was given oxygen constantly but grew progressively weaker and died in 36 hours.

A postmortem examination was made and this revealed a complete absence of the right lung and bronchus. The trachea was smooth and not marked by rudimentary tags of any sort. The heart and mediastinum were displaced into the right chest. The heart maintained its normal relationship to other structures, the apex being directed toward the left. The left lung was air-bearing throughout and contained three lobes. The diaphragm was intact. The thymus gland was large but within normal limits for size. Heart was normal in size and structure. The abdominal organs were normal.

Re-examination of the living twin confirmed the dextrocardia with a diffuse apex beat that extended to the right axillary line. No breath sounds were heard in front nor in the axilla and only suppressed sounds over the base of the right side. There was dullness on percussion. On the left, breath sounds and percussion were normal.

An X-ray was taken, and indicated absence of the right lung and some anomalies of the spine. Blood studies were made. The baby was Rh positive but there was no indication of erythroblastosis. The hemoglobin was 96%, R. R. C., 4,650,000 and W. B. C. 5,350. The distribution of white cells was essentially normal and all immature red cell forms amounted to 3%.

Re-examination was done when the baby was seven weeks old. The mediastinum was not displaced to the right to as great a degree as at birth. Physical findings indicated better lung expansion of the left lung. The spine appeared straight on physical examination but appeared worse in an X-ray taken. The baby had gained 3½ pounds during the seven weeks. He exhibited quite a temper and grew red when he cried and developed a wheeze when he cried for long. There was no cyanosis. There seemed to be some asymmetry to the face.

A third X-ray taken February 17, 1948, was sent to me from Phoenix and shows essentially the same findings.

Search of the literature reveals we have an extremely rare condition. Pierson, Garber and others making a careful search of the entire literature can find less than 100 proven cases. Only one other set of twins was reported—those of Finkelstein in Germany in 1924. They were female homozygous twins—one with a rudimentary left lung and normal right and one with a rudimentary right lung and normal left. They lived one week and diagnosis was made postmortem. Only about a half dozen cases were diagnosed clinically, as it is extremely hard to differentiate the condition from atelectasis, hydrothorax, pneumonia, diaphragmatic hernia, etc. Bronchoscopy and lipiodol visualization is helpful but dangerous. Symptoms are usually lacking. Dyspnea, cyanosis and failure to thrive are noted in early cases. External symmetry of thorax is usually maintained, although there may be some flattening of the affected side.

Dullness or flatness on the affected side is common. Breath sounds may be absent or suppressed.

Prognosis for life may be good. Some have reached the age of 58, 65, 72 and died of causes unrelated to this condition. These patients are prone to bronchitis and pneumonia. Deaths in two children occurred a few minutes after they aspirated peanuts.

Other congenital anomalies are often found. Absence of the diaphragm, anal strictures, esophago-tracheal fistula, accessary thymus, hypertrophied thymus, hernia of the diaphragm on the affected side, curvature of the spine and under-developed face.

Schneider classifies agenesis of the lung as follows:

1. True aplasia of the lung and bronchus in which there is no trace of a bronchus.
2. Aplasia of the lung in which the bronchus is represented by a blind pouch or a nodule of cartilage and fibrous tissue.
3. Extreme hypoplasia of the lung in which the main bronchus is normal in size and shape and ends in a fleshy structure.

Cause is obscure. Klobs thought it was excessive tension of the amnion when the embryo rotated to the left that prevented the development of the right lung. However, this does not explain the absence of left lungs which occurs twice as often as right.

Eppinger believed the enlarement and displacement of the thymus was responsible for failure of development of the left lung in a case which he saw.

Tichomiroff believed that hydrops fetalis or some early intrathoracic disturbance or infection caused the defect.

It is probably faulty development in the germ plasm. Areys describes the embryonic development of the respiratory system as follows: A groovelike evagination arises out of the ventral side of the esophagus in the 3mm embryo. From the posterior ends of the groove two small lung buds grow out. Later in the development the predestined anlage of the trachea and esophagus becomes separated by a constriction interrupted at the cephalic end by the larynx which can be seen in the embryo at the end of the fifth week. Muscle fibers and cartilagenous rings differentiate from the surrounding mesenchyme by the end of the seventh week. In a later development of the lung buds, hollow evaginations grow out into the envelope of connective tissue, enlarge rapidly and branch to produce the true tree-like tubular system.

In our patient we have a strong case for those preferring the supernatural and who like to believe a child can be "marked," in as much as the father had undergone a thoracoplasty for tuberculosis during the pregnancy.

BIBLOIGRAPHY

Hurwitz and Stephens: Agenesis of the Lung, Vol. 193. January, 1937, American Journal of Medical Sciences.

Killingsworth and Gibbs: Agenesis of the Lung, Vol. 58, September, 1939, American Journal, Diseases of Children.

Olcott and Dooley: Agenesis of the Lung in an Infant. American Journal, Diseases of Children.

Van Loon and Diamond: Congenital Absence of the Right Lung Occurrence in a Healthy Child. American Journal, Diseases of Children, Vol. 62, September, 1941.

Burger: Agenesis of the Lung. American Journal, Diseases of Children. Vol. 73, April 1947.

Greenfeld and Gray: Malformation of the Lung. Arch. Pathology. Vol. 31, March, 1941.

Mitchell: Agenesis of Right Lung, with death following aspiration of foreign body into left lung. Annals of Oto. Rhino Laryng. Vol. LV, No. 3, September, 1946.

Finner: Congenital Absence of One Lung. Report of a Case with Autopsy. Clifton Medical Bulletin, Vol. XVIII, April, 1932.

Garber: Congenital Aplasia of the Lung. American Journal Roentgenology. Vol. 53, No. 2, February, 1945.

Pierson: Aplasia of Lung. Annals Oto. Rhino and Laryng. Vol. LV, No. 3, September, 1946.

Field: Pulmonary Agenesis and Hypoplasia, British Journal Children's Diseases, Val. 21, No. 106, June, 1946.

Arizona Medical Problems

CONSULTATION AND CASE ANALYSIS

AMEBIASIS

ARIZONA MEDICINE again presents an unsolved and difficult case from the practice of Arizona physicians, with the Case-Analysis and comments of a specially-chosen and nationally-known Consultant.

Any physician who has an undiagnosed case which has defied other methods of solution may send it for consideration. The case should be completely worked up, but an editor will help composè the report. Whenever the need for an answer is urgent, the Consul ant's reply will be sent direct to the submitting physician, before publication.

Please send communications and data to Dr. W. H. Oatway, Jr., 123 S. Stone Avenue, Tucson, Arizona, or care of The Editor, Arizona Medicine.

The consultant in the present case is *Dr. Gustaf E. Lindskog*, of the Department of Surgery, School of Medicine, Yale University, New Haven, Conn.

Dr. Lindskog is William Carmalt Professor of Surgery and regional consultant in Thoracic Surgery for the Veterans Administration, Branch No. 1; an associate editor for ARCHIVES OF SURGERY; a member of the A.M.A., American Association of Thoracic Surgery, American Surgical Association, Society for Clinical Surgery, Society of University Surgeons, New England Surgical Society; and is the author of various short articles in general and thoracic surgery.

In the Navy during 1944 and 1945, Lt. Comdr. Lindskog compiled (with Capt. Waltman Walters of the Mayo Clinic) a masterly discussion on the medical and surgical aspects of the subject under discussion in the present case, and it was published in 1946. (*See reference at the conclusion of the case-analysis.)

CASE NUMBER IX

The patient is a white male rancher, 65 years of age. Details of the case-report have been obtained from the surgeon and internist who have cared for him during the past seven months. The surgeon had seen him at intervals previously, but he was referred to the internist by an ophthalmologist who was treating him for recurrent corneal ulcers, and who wanted to know the cause of the patient's chronic ill-health.

The patient is a native of Montana who worked for years in Chicago as a broker, travelled widely throughout the western hemisphere as an engineer, and has lived in Arizona for the past twelve years. He has recently been growing cotton on a ranch near the Mexican border.

Past medical history—He lived in the tropics between 1901 and 1910, and had numerous malarial attacks which subsided after his work took him to Alaska.

In 1922 he developed "stomach trouble" in Chicago. A diagnosis of "intestinal parasites" was made, and he was given effective treatment.

In 1924 his appendix ruptured, he was operated on, and was told his appendix would not trouble him again, since it was "gone."

In 1927 he had a cervical and dorsal spinal arthritis which was treated, subsided in six weeks, and has not troubled him since.

In 1929 he had a gall-bladder attack, and recurrences on three later occasions. An x-ray showed two stones, but surgery was never done. Abuut 1935 he was examined by an internist and said to have "hardening of the arteries and cirrhosis of the liver."

About 1936 he had fever and a gastro-intestinal upset, following which his appendix ruptured again. A laparotomy was done, an abscess found, the stump was inverted, but the operation was concluded when a severe hemorrhage followed an attempt to free the remainder of the appendix; a drain was left in, and a sinus continued to exude small amounts of pus for 14 months before closing.

At some indefinite time during this period his chronic symptoms of "acid stomach" became worse, and a diagnosis of "ulcer" was made; the symptoms subsided readily with diet.

Two years ago he was hospitalized for two weeks with his third corneal ulcer in 12 years. They had been slow to heal, and left no scars. He was found to be afebrile, and the only point of interest on examination was a 6 cm. ventral hernia in the RLQ. The serology was negative; the RBC and Hb were normal; and a leucocytosis of 16,000 returned to normal in a week (the eosinophiles were normal). He was given sulfadiazine, penicillin, and two transfusions, and the eye condition healed regularly and slowly (6 weeks), as usual.

He has had no other illnesses and has a negative family history. He smokes heavily, and until two months ago has been a regular and fairly heavy drinker all of his adult life.

When seen at the office in August, 1947, the corneal ulcer was of two months duration, and healing slowly after injections of typhoid, milk and protein. He had also been given trials of penicillin and a "sulfa drug;' the latter caused a generalized dermatitis and fever. Additional **history by systems** included a mild nervousness when ill; anorexia in the summer, associated with a poor tolerance for hot weather; an occasional discomfort in the liver area; and no other abdominal complaint except that he had noticed a walnut-sized nodule attached to the structures in the area beneath the hernia. His strength had decreased, and his weight dropped 15 lbs. from his usual of 145.

On **physical examination** he was found to be thin, the tissue tone was very poor, and there was a dry exfoliation of the skin on his hands. There were no abnormal lung signs, and the lungs and diaphragm were normal by fluoroscopy. The heart size was normal, but all sections of the thoracic aorta were moderately prominent. The pulse was 88, the B.P. 130/90. The spleen was not

palpable on inspiration, and the liver (felt through the hernia) was normal and smooth. A node of medium firmness was easily felt on what appeared to be a somewhat-fixed mesentery beneath the hernial gap. The prostate was normal.

A **barium enema** showed a normal tone, good filling and evacuation, a freely mobile cecum and lower ileum, and a few diverticula of the sigmoid.

A stool was normal, and negative for ova and parasites. A white blood count was 10,350, with 43% neutrophiles, 51% lymphocytes, and no eosinophiles. (Data on counts during the previous six weeks showed total counts of 10,000 to 19,000, but with a regularly greater number of lymphocytes than neutrophiles.) His RBC was 4,500,000 and Hb. 12 to 14 gm.

The **tentative diagnoses** consisted only of the chronic aortic, gall-bladder, colonic, and abdominal-wall lesions. Because of the single node and the lymph-ocytosis, suspicion was directed at that system, though the abnormal counts had occurred during the injection of various antigens. It was decided to observe him closely, and he was started on a bland diet, a bile salt preparation, and a vitamin concentrate.

The **progress** was uneventful during the next two months. He occasionally had a "full feeling" and "pressure" in the gall-bladder area, occasionally had spells of belching, and continued to note a general aching and malaise. No cause was found for the generally poor condition. He was given testosterone by mouth, and noted a general subjective improvement (though without change in the libido, etc.).

Three months later, in February of this year, the patient had a severe "cold" and bronchitis. Three days later he began to have severe pain in the RLQ of his abdomen, a lesser pain in the LLQ, and a persistent fever of about a degree. After another day or so he began to have a **diarrhea.** He was **admitted to the hospital by his surgeon,** and was seen in consultation by the internist. There were signs of a generalized respiratory infection; the abdomen was only mildly tender, but the mesenteric node was large and hard. A WBC was 17,400, with a reversal of the differential—88% neutrophiles. Four stool specimens were examined; evidences of inflammation were present, but there were no ova or parasites, and the organisms on culture were variable and unimportant. A **barium enema** again showed diverticulosis, plus **rather marked spasm** just proximal to the hepatic flexure, with suggestion of inflammation in that area. He was given symptomatic therapy for the respiratory infection, and medicated enemas sulfasuxidine, and penicillin (I. M.) for colitis. After one week he was allowed to go home, slightly improved.

A week later the patient was seen at the office. He had continued to have an occasional 1-2 degree of fever; the **stools** were occasionally loose, with small clotted flecks of blood and raisin-like concretions; the muscular aches continued; and the entire abdomen was sore. He had continued to use hyclorite enemas. On examination the abdomen was not tender. He had lost another three pounds. The lungs were clear by fluoroscopy. Stools on two successive days were soft to semiliquid, contained pus and mucus, and had rare cysts of **Giardia lamblia.** He was given one and a half grains of atabrine t.i.d., a bland diet, a kaolin preparation, a vagal depressant, and the enemas were discontinued. During the following week he became more comfortable, but the diarrhea continued at the rate of three or four stools per day, and the intermittent fever reached 100 degrees each day.

A week later, on Apjril 6th., he reported **an intense pain in the RUQ.** (His care was assumed again by the surgeon, due to illness of the internist.) He was hospitalized for two days for a barium enema and a transfusion, though the RBC and Hb. were normal. A WBC was 24,000, with 67% neutrophiles. The temperature remained below 99 degrees. **The barium enema** showed an "extensive hypertonicity of the proximal colon, suggesting **an increased inflammatory disease** of that area; there was also newly-present a **dense infiltration at the right lung base,** extending from the hilar area to the costa-phrenic sulcus. (He had been discharged before this finding was reported.)

Two days later he was admitted because of persistent generalized abdominal pain, fever. and the onset of nausea and vomiting. A WBC was 17,300, with 84% neutrophiles, 16% lymphocytes. On examination there was a marked tenderness three inches below the R.C.M.; there was tenderness to percussion over the liver; and the liver seemed enlarged downward. An **exploratory laparotomy** was done through the RLQ hernia and a greatly distended gall-bladder wtih an obstructing stone in the cystic duct was found. The gall-bladder was opened, the fluid was not purulent, two stones were removed, and a drain was left in. The hernia was repaired, and in the process a portion of the appendix was found to still be present in the abdominal wall scar. (The notes did not mention any abnormality of the liver or colon.)

Post-operatively the course was stormy, with a fever of 1-2 degrees (most notable after the 5th day), and blood counts of 27,000 to 34,000 with 84 to 88% neutrophiles. There were several loose stools per day, but three of them showed only the findings of an inflammatory colitis, with considerable free blood. Three transfusions were given, but no therapy had any effect on the colitis. On the twentieth day the patient insisted on going home.

The most recent admission began only three days later. The patient had continued to be very ill, with fever, diarrhea, malaise, and abdominal pain. He was seen to be somnolent, indifferent, cadaverous, and dehydrated. He had a productive cough. The temperature was 101 degrees; the WBC was 15,850, with 77% neutrophiles; the RBC —3,670,000, Hb—11 gm.; urinalyses were normal except for signs of mild ketosis. The liver was enlarged downward and tender; the sinus to the gall-bladder was open, and draining slightly.

(An attempt has been made at this time to review all of the findings, and correlate the abnormalities of the colon, lung, and liver, in spite of the lack of a specific etiology and the confusion which new and old surgery had interposed.)

QUESTIONS—

1. Can a primary diagnosis be made, in view of the progress and findings?

2. What diagnostic measures would be of help?

3. What medical and/or surgical treatment is advisable?

4. What is the prognosis?

Drs. A. & B., Tueson.

ANALYSIS AND ANSWERS—

A. *Differential Diagnosis*

I. Amebic dysentery, hepatic abscess.

The most likely diagnosis in this case is chronic amebic dysentery with amebic colitis, hepatitis and *subacute liver abscess.* It is a truism that the most likely diagnosis in a difficult and complicated case is one that will encompass satisfactorily all or most of the historical, physical and laboratory data.

That amebiasis does this is suggested by the following:

1 history of *an intestinal illness* in 1922 diagnosed as intestinal parasites, while the patient was resident in Chicago. We recall the 1933 epidemic outburst of amebic dysentery in Chicago which was presumably caused by infected food-handlers and faulty plumbing-sewage connections in a small group of hotels. Furthermore, this patient has had a long period of residence in the tropics where amebiasis is more prone to occur. However, it is better thought of as a disease of endemic type and practically worldwide distribution.

2 *recurrent diarrhea.* This is a very helpful symptom when present, as in this case. Unfortunately only about half the patients with proved amebic hepatitis and abscess give a clear-cut past history of diarrhea. There may be only an occasional loose, or liquid stool occurring in short periods of one to several days; certain chronic cases have constipation. During diarrhea in chronic cases the stools show considerable mucus, but rarely flecks of blood.

3 *progressive weight loss, anorexia and cachexia* are particularly suggestive of hepatic complication. *Heat intolerance, insomnia, and nervousness* are complaints in some chronic cases.

4 fever and leucocytosis with polymorphonuclear increase. The uncomplicated case of amebic enteritis, unless very severe, has either no fever, or a subnormal temperature; *when hepatitis supervenes, the temperature is elevated,* as in this case to 100°-102°. Likewise a normal white count becomes elevated when the complication occurs. Usually the polymorphs are not as numerous as in pyogenic infections.

5 *enlargement of the liver.* This was noted on the last two admissions, with tenderness under the right costal margin. It is of course a very valuable sign of hepatitis especially when associated with the next finding.

6 roentgen demonstration of *infiltration in the right lower lung field.* In a collected series of 604 cases of amebic liver abscess, Craig (1934) listed 190 cases of rupture. The rupture is likely to occur into the subdiaphragmatic space, or through the diaphragm into pleura, lung, or pericardium. I have seen extensive extrapleural dissection of such an abscess with clear, sterile, intrapleural fluid above it. A high fixed right diaphragm with a pleural effusion or basilar pulmonary infiltration above it suggests an underlying subdiaphragmatic or liver abscess.

7 demonstration of *large bowel changes* by barium in February and April. These changes were those of spasm and inflammatory reaction in the proximal right colon. The usual appearance described is a moth-eaten one in the cecum and proximal colon. In a rare instance, definite tumefactions may result in the large bowel, the so-called amebic granuloma. These are easily confused with carcinoma.

8 history of *recurrent appendiceal abscess.* While many cases of amebic dysentery are misdiagnosed appendicitis, it is also true that acute appendicitis may be directly caused by an amebic invasion with secondary pyogenic infection. Occurring in this case within two years after the initial intestinal infection, a relationship is perhaps suggested. It is to be remembered that other causes of recurrent appendiceal abscess exist and have to be ruled out, viz. incomplete removal of the appendiceal stump, residual fecalith, tumor of cecum, tuberculosis, ulcerative colitis, regional ileitis and actinomycosis.

The absence of amebae in the stools cannot be employed as a conclusive objection to the diagnosis of amebiasis. It is notoriously difficult in certain cases to find the organism. Success depends on persistent study of fresh warm stool, care in technic, and the use of a saline cathartic to induce trophozoite production in case the patient has formed stools and no active diarrhea. Some authors feel that a proctoscopic examination is useful to demonstrate local ulcerations of the mucosa and to secure specimens for examination by direct swabbing. This may be of value in chronic cases.

The existence of a proven cholecystitis and cholelithiasis in this case, as demonstrated by operation in April can hardly be explained by amebiasis, but is consistent with patient's age, the history of malaria, and the long standing intestinal infections, and previous appendicitis.

II. Chronic cholecystitis, cholelithiasis, cholangitis and non-specific liver abscesses.

We have uncontrovertible evidence in this case for the existence of the first two features, but this diagnosis would hardly explain the recurrent diarrhea with mucoid stools. Had the patient developed a cholangitis to explain the liver findings, the result would probably have been an extremely septic temperature reaction with peaksof 103° or higher, and a good likelihood of jaundice in some degree at some time. In this connection, the patient was observed by X-ray in April to have pulmonary signs already present when the temperature was steadily under 99°. This is against a pyogenic cause for the pneumonitis. Subsequently laparotomy showed a distended but presumably imperforate gall-bladder with *non-purulent* contents. There is also no record of clay-colored stools.

III. Carcinoma of right colon, with perforation and subhepatic or intrahepatic abscess.

There are certain things favoring this diagnosis: the patient's age, the abnormal roentgenographic findings in the right colon, the enlarged liver. There are, however, serious objections to this diagnosis; especially the records of normal red count and hemoglobin until the final admission, and a previously normal barium enema when first studied in August, 1947. Furthermore, the existence of a ventral hernia gave excellent opportunity too palpate any right colonic tumefaction, and mention is made only of a small "node" in the mesentery.

IV. Diverticulosis of colon, with infection, perforation and secondary subhepatic or intrahepatic abscess.

The X-rays have demonstrated diverticuli in this case, but at no time were definite findings of peritonitis described either by physical examination or at operation.

B. *Further Diagnostic Studies*

Having settled on a working diagnosis of amebic infection, the following *further diagnostic aids* suggest themselves:

1 repeated studies of fresh warm stool specimens for amebae.

2 proctoscopy, as discussed above.

3 complement fixation test of the blood, if the stools continue to be negative.

This test is highly specific when positive, but may be negative in some cases of subsequently proven amebiasis. Facilities for this test are available to the profession at the National Institute of Health, Bethesda, Maryland.

4 blood smears for malarial parasites. The tendency for ancient malaria to recur during periods of severe illness due to other infections or causes must be remembered.

5 Studies of liver function (prothrombin time, cephalin flocculation, icteric index, thymol turbidity).

It is to be emphasized that jaundice is an uncommon finding in amebic hepatitis.

C. *Treatment*

1. Metabolic. In view of the acute state of dehydration, acidosis, and cachexia described, the patient undoubtedly had significant fluid, protein and electrolyte loss because of the diahrhea. He will need an immediate determination of total serum protein, serum chlorides, and nonprotein nitrogen. The daily urine volume and its specific gravity will be of some help. Fluid replacement at first by intravenous route will include 5% glucose in water, normal salt solution, and 5% amigen, the exact amounts dependent on the above findings and the amount retained by mouth. Because of the sickly liver, the observed corneal lesions and skin changes of the hands, vitamin therapy is desirable.

In view of the anemia, 500 to 1000 cc. blood transfusion would help to speed the convalescence.

2. Specific anti-amebic therapy. Even though future stool examinations remain negative, *a therapeutic test of emetine hydrochloride is indicated.* Given at the rate of one grain (0.065) subcutaneously daily it should be continued for 10 days, or until the fever and diarrhea subside but not longer than 12 days, in any event. Should this prove therapeutically effective (and thus help to establish the diagnosis) *it should be followed by oral medication.* There is a choice of *chiniofon, carbarsone, or diodoquin.* The latter is currently preferred by many, in doses of 3 tablets, each 3 grains (0.21) three times a day for two weeks. This drug can be used orally before the emetine is stopped.

If chiniofon is used, the dosage is 0.5 gm. three times a day for 8 days. A retention enema of 200 cc. warm tap water with 2 per cent chiniofon can be used also once daily in the evening.

Should the liver fail to recede in size, and the fever persist after the emetine trial, then a liver diagnostic needle puncture is indicated. This should be directed first at the upper right lobe of the liver, trying to stay away from the overlying lung and pleura. If pus is obtained, it should be studied by smears and cultures. If sterile pus showing motile trophozoites is obtained, the patient would probably be responding favorably to the drug. If pyogenic organisms are present, penicillin 100,000 units should be injected into the abscess cavity directly, and systemic penicillin therapy begun. If this is not very rapidly effective in abolishing fever, and reducing the size of the liver, a surgical exploration would be necessary for establishment of external drainage.

D. *Prognosis.*

If the above diagnosis is correct and the program followed with no untoward reaction such as emetine sensitivity and toxic myocarditis, the prognosis is good for complete recovery.

GUSTAF E. LINDSKOG, M. D.,
Department of Surgery,
Yale University School of Medicine,
New Haven, Connecticut.

*(Surgical Aspects of Amebic Dysentery, Gustaf E. Lindskog and Waltman Walters, J.A.M.A., 131:92, May 11, 1946.)

PROGRESS NOTE—The patient was given emetine, a liver abscess was evacuated, and the patient abruptly began his recovery.

MISCELLANEOUS SECTION

Poliomyelitis Current Literature

459. Gronvall Herman and Selander, Per. (Kristianstad, Sweden).

NAGRA VIRUSSJUKDOMAR UNDER GRAVIDITET OCK DERAS VERKAN PA FOSTRET (SOME VIRUS DISEASES DURING PREGNANCY AND THEIR EFFECT ON THE FETUS). Nord. med. 37:409-415 (Feb. 27, 1948).

In 1941 Gregg discovered that maternal rubella (German measles) may cause malformations in the child. The authors have studied the effect of virus diseases in the mother on the fetus by questioning pregnant women at lying-in hospitals and have reported their results. Of 38 women with poliomyelitis, 8 aborted. In one case the child died during delivery. Two children were born prematurely and soon died. Two children had cardiac defects, 26 were not malformed.

44 references.

---

408. Lawson, Robert B. (Bowman Gray Sch. Med.)

THE USE OF FURMETHIDE (FURFURYLTRIMETHYLAMMONIUM IODIDE) FOR PARALYSIS OF THE BLADDER FROM POLIOMYELITIS. South. M. J. 41:251-255 (March, 1948).

"Furfuryltrimethylammonium iodide (furmethide) was given for paralysis of the bladder from poliomyelitis in 30 of 36 patients with this condition. Good results were obtained in 21 patients (70 per cent) and poor results in 9 patients (30 per cent). Despite the occasional failures, it is recommended that furmethide be used for paralysis of the bladder in poliomyelitis in order to avoid the discomfort and hazards of catheterization." (Author's summary)

7 references

---

406. Hammon, W. McD. (Hooper Fdn., U. Calif., San Francisco).

LABORATORY AIDS IN THE DIAGNOSIS OF POLIOMYELITIS. M. Woman's J. 55: 35-39:66 (March, 1948).

Presented at the Clinical Conference on Poliomyelitis held at the Warm Springs Foundation, September 15-17, 1947 under the auspices of the National Foundation for Infantile Paralysis. "In conclusion, it may be stated that there is only one specific laboratory method for diagnosing poliomyelitis in the living patient—the isolation of virus, a test which cannot be employed routinely. On the other hand, specific serological tests may be used to rule out certain other virus infections which frequently present difficult differential diagnostic problems. Examination of the spinal fluid and blood by clinical laboratory methods should be carried out routinely as a diagnostic aid."

---

402. Fox, Max J. and Madden, William J. (Marquette Univ. Sch. Med.)

SEDIMENTATION RATE IN ACUTE POLIOMYELITIS. Marquette M. Rev. 13:65-66 (Feb. 1948).

"The sedimentation rate in uncomplicated poliomyelitis is quite constantly within the nor-

mal range. Any elevation of sedimentation rate in poliomyelitis is highly suspicious of an improper diagnosis and the presence of a secondary infection. There is no correlation between the white blood count, the spinal fluid cell count, and the sedimentation rate."

1 reference (Authors' conclusions)

---

472. Schlesinger, Edward B.; Drew, A. L., and Wood, Barbara. (Coll. Phys. & Surg., Columbia U., N. Y. C.)

CLINICAL STUDIES IN THE USE OF MYANESIN. Am. J. Med. 4:365-372 (March, 1948).

"Myanesin [a, B-dihydroxy (2-methyl phenoxy)—propane] in 2 per cent solution is capable of affecting the abnormal neuromuscular mechanisms underlying muscle spasm, spasticity, rigidity, tremor and the dyskinesias. The primary site of action of this drug appears to be the brain stem and spinal cord. In addition to its spinal cord and brain stem depressant action, the drug has local anesthetic activity of the order of procaine and in certain concentrations has a hypnotic effect of the order of the barbiturates. Although it is known that myanesin has a curare-like action peripherally, this is of a low order and is not responsible for the major pharmacologic effects of the drug. The margin of safety with 2 per cent solutions seems sufficiently wide to make the drug of therapeutic value. At such concentrations, neither hemoglobinuria nor phlebitis was produced. During administration of 2 per cent myanesin in the human subject the following side-effects have been regularly noted: Horizontal nystagmus, a feeling of warmth, circumoral numbness or 'pins and needles' sensation, a mild fall in systolic blood pressure, corneal injection, vertical nystagmus, blurred muscular incoordination and drowsiness. Myanesin is worthy of further trial as a therapeutic agent in the treatment of true muscle spasm."

11 references

---

473. Scobey, Ralph R. (Syracuse, N. Y.)

PORPHYRIA AND POLIOMYELITIS, Arch. Pediat. 65:131-166 (March, 1948).

A review of recorded observations which are interpreted as pointing to an apparently "intimate relationship between porphyria and poliomyelitis," both resulting from poisoning by cyanide in water and food.

208 references

American Academy of Pediatrics

At its meeting in Washington on July 7th and 8th the Executive Board of the American Academy of Pediatrics reviewed in detail the work of the Survey Committee and its Executive Staff. The monumental task of collecting factual data from every state in the Union is now well on its way to completion. The Academy feels greatly indebted to its State Chairmen, their Executive Secretaries, and to all the other individuals and organizations to whose co-operative efforts at the state level belongs a major share of the credit of the success of the Survey.

The State Chairman of Arizona has informed this office of your valuable assistance, and we take this opportunity to thank you on behalf of the entire Academy. It is our belief that this effort on the part of physicians to inform themselves accurately concerning the medical facilities and services or their lack for the children of America can be the basis for a constructive program for the improvement of child health throughout the nation. Obviously much remains to be done if the statistical material which is being collected and processed is to reach its maximum effectiveness. Sometime within the next few months each state will have the facts as they exist within their own borders. Based upon these facts, a state report will be prepared. It is hoped that the individual states will then undertake active programs based upon their own needs as demonstrated by the Survey. Looking ahead to this time we would enlist your further support and co-operation in the same manner as has been done during the conduct of the Survey.

The Academy is justly proud to be the sponsor of a program which has received such wholehearted co-operation from so many individuals and groups. Its reward will come if out of these combined efforts a better way of life can be secured for the children of America.

Yours very sincerely,

John A. Toomey, M. D.,
President

Clifford G. Grulee, M. D.,
Secretary-Treasurer.

With reference to the new journal "Pediatrics," the official journal of the Academy—"The Publication Committee feels that the journal will prove to be the best of its kind published, therefore, its influence should extend far beyond

the horizon of the Academy membership. The Academy feels that it would be desirable to have this journal in the libraries and hospitals of each state as well as being available to all practicing physicians. Subscriptions should be sent to Charles C. Thomas, Publisher, 301 East Lawrence Ave., Springfield, Illinois. The subscription price for the new Journal is $10.00 per year."

Announcement of the coming meeting—National Meeting of the American Academy of Pediatrics in Atlantic City, New Jersey, November twentieth through November twenty-third, 1948. Any physician wishing to attend the meeting should get in touch with Dr. Clifford G. Grulee, Secretary-Treasurer, 636 Church Street, Evanston, Illinois. Physicians other than members of the American Acadamy of Pediatrics who wish to attend the meetings may obtain further information from Dr. Edgar E. Martmer, 693 Washington Road, Grosee Point, Michigan.

Vivian Tappan, M. D.
Arizona State Chairman
American Academy of Pediatrics

Office of the Surgeon General

THE ARMY'S FIRST EXTENSIVE TEST OF CHLOROMYCETIN SHOWS ENCOURAGING RESULTS

First reports from a United States Army test station recently set up at Kuala Lumpur, Malaya, on the most extensive experiment yet made with chloromycetin, the so-called "miracle drug," give strong indications that the recently discovered anti-biotic, chloromycetin, may prove as effective against *scrub* typhus as was hoped.

This experiment has been eagerly anticipated as a potential landmark in the history of medicine, for until the development of chloromycetin, even typhus vaccine had proved ineffective against a disease which was reportedly making serious inroads among native Malayan plantation workers.

Yesterday, Dr. J. E. Smadel, director of virus research at the Army Medical Center, in Washington, and a co-discoverer of chloromycetin, cautiously reported from Malaya on the first results of treatment of 25 native patients, compared with a small untreated, "control" group. His findings were delivered in Washington this morning to the Fourth International Congresses on Tropical Medicine and Malaria by Colonel Rufus L. Holt, Commandant, Army Medical Department Research and Graduate School.

Using controls composed of a similar number of Europeans, Malayans, East Indians and Chinese, Dr. Smadel and his group found that chloromycetin markedly reduced duration of fever, period of hospitalization, and incidence of complications in scrub fever.

The 25 patients to whom chloromycetin was orally administered averaged a fever period 7½ days, developed no complications, and were hospitalized an average of 19 days. In addition, it was learned during the period of experimentation that both the duration and the amount of drug therapy could be materially reduced with results equally satisfactory to those obtained at the outset. The first patients received a total of 8 to 15 grams of the drug over an average period of six days; this was eventually cut to about 6 grams administered within a period of 24 hours.

Of the untreated control group, one died, one developed serious complications, the mean duration of fever was 18 days, and the average period of hospitalization was nearly 31 days.

Selection of Malaya as a test base followed reports of a high incidence in that region of *scrub* typhus, also known as Rickottsial tsutsugamushi and as "Japanese River Fever."

During the war with Japan, many Malayan plantations fell into disuse and were allowed to go back to brush. This resulted in an increased population of rodents, thought to be a carrier of the Rickettsia-bearing mite. Native workers were sent in to clear the plantations; and a heavy mortality rate was said to have resulted.

Previous laboratory experiments with chloromycetin have shown considerable effectiveness against rickettsial diseases other than *scrub* typhus. The drug has even been found to be mildly effective against one virus disease, psittacosis (Parrot fever), although it must be borne in mind that the psittacosis organism is one of the largest of the viruses and just falls short of being classified as a Rickettsia.

AMERICAN COLLEGE OF PHYSICIANS ANNOUNCES ITS ANNUAL SESSION AT NEW YORK CITY MARCH 28 - APRIL 1, 1949

The American College of Physicians will conduct its 30th Annual Session at New York, N. Y., March 28 through April 1, 1949. Dr. Franklin M. Hanger, Jr., of New York City is the Chairman for local arrangements and the program of Clinics and Panel Discussions. The President of the College, Dr. Walter W. Palmer, Director of The Public Health Research Institute of the City of New York, Inc., and Professor Emeritus, Columbia University College of Physicians and Surgeons, is in charge of the program of Morning Lectures and afternoon General Sessions.

Secretaries of medical societies are especially asked to note these dates and, in arranging meeting dates of their societies, to avoid conflicts with the College Meeting, for obvious mutual benefits.

TWENTY-FIRST ANNIVERSARY YEAR OF HAROFE HAIVRI

The Hebrew Medical Journal
Volume I — 1948

The appearance of Volume I - 1948 of the HAROFE HAIVRI, The Hebrew Medical Journal, inaugunrates the 21st successful year of its publication under the editorship of Moses Einhorn, M. D. The Journal's contents are not confined to technical medical topics but is divided into several sections covering a variety of related subjects of interest to the medical profession.

The founders had faith in the vitality and growth of modern Hebrew and foresaw that a Hebrew medical publication would be of service to the future medical department of the Hebrew University and of great value in the development and advancement of Hebrew medical literature.

The section on Palestine and Health contains an article by A. Klopstock, M. D., which discusses the high incidence of Amoebiasis in Palestine. Included also is the significant study of Mental Health in Palestine by A. H. Merzbach, M. D., and a survey of the Present Urological Conditions in Palestine by W. Boss, M. D. Dr. M. Buchman describes the history of the Hot Springs of Tiberias and presents a full analysis of their therapeutic value.

In the section on Historical Medicine, Dr. M. Gelber reviews the contribution of the Jewish doctors in Poland during the eighteenth century. The section on Personalia contains a biographical sketch of Dr. I. Seth Hirsch, and his contributions to the field of radiology.

The original articles are summarized in English to make them available to those who are unable to read Hebrew. For further information, communicate with the editorial office of the Hebrew Medical Journal, 983 Park Avenue, New York 28, N. Y.

Arizona's Blue Shield

BLUE SHIELD, OR COMPULSORY GOVERNMENT INSURANCE

PAUL R. HAWLEY, M. D.,
Chief Executive Officer
Blue Cross - Blue Shield Commissions

A speech delivered at the Conference of Presidents and Other Officers of State Medical Associations, June 20, 1948.

The danger that threaten the free practice of medicine in this country are fast becoming critical, and still we delay in uniting in decisive action to meet them.

We waste precious time in quarreling among ourselves over petty questions of local sovereignty. We amuse ourselves by setting up fantastic straw men, and dissipate our energies in knocking them down, while our enemies have been uniting against us in one national effort. We have thus far done no more than fight a series of rear-guard actions with small unorganized and uncoordinated groups. I know of no more certain road to disastrous defeat.

Our national leaders seem to be purposefully blind to the social changes that are taking place. It is impossible to halt a movement by merely refusing to recognize its existence; and this movement toward extending the benefits of adequate medical care to all of our citizens has already gained too much momentum to be halted by any means. The last hope of American medicine lies in abandoning our present position in the rear of the column, where we have been holding back, and establishing ourselves firmly in the forefront, where we can guide and direct the move-

ment into paths that are the best for our people as well as best for our profession. I emphasize that the welfare of our people must be given at least as much consideration as the welfare of the health professions. Too many physicians regard medical care as their exclusive prerogative. We must recognize that the consumer of medical care also has a great stake in it; and, if there has existed any doubt as to this, it should have been dispelled by the deliberations of the National Health Assembly, held in Washington early in May.

I shall offer no defense of the motives that prompted the organization of this Assembly. They may have been, as has been charged, largely political. But however impure the motives, only a very stupid person could have listened to the discussions in the Section on Medical Care and come away unimpressed both by the strength and the determination of the groups committed to *an effective* program for prepayment of medical care. I emphasize "effective," because the preponderant opinion there expressed was that existing plans are acceptable only so far as they go, that they do not go far enough, and that, if they are to be fully acceptable as a substitute for compulsory Government health insurance, the coverage they offer must be extended considerably, and must be uniform throughout the country. In fact, a resolution to the effect that *only* a compulsory Government insurance plan could satisfy these criteria was proposed, and vigorously supported by the American Federation of Labor, the Congress of Industrial Organizations, the Cooperative League of America, the National Cooperative Health Federation, the National Federation of Settlement Workers, the Committee for the Nation's Health, the American Association of Social Workers, the Physicians' Forum, the National Consumers' League, the National Women's Trade League, the United Mine Workers, the American Veterans' Committee, the National Farmer's Union, the Physicians' Committee for Improvement of Medical Care, the League for Industrial Democracy, and the Association for the Advancement of Colored People. This conclusion was not adopted, for the reason that adoption of any conclusion required the unanimous approval of the Steering Committee; and a single dissent was sufficient to defeat a proposal. But the array of strength behind this conclusion should convince even the die-hard tories in the health profession that the threat of nationalization of medical care in this country is real, is acute, and soon will be, if it is not already, sufficiently great to precipitate action by the Congress. The press carried yesterday the news that the Wagner - Murray - Dingell Bill would not be reported out of Committee during this session of the Congress; but it also stated that hearings upon this Bill would be resumed in March, 1949. So the Bill is far from dead. The representatives of the people, in Congress assembled, are swayed by numbers of voters rather than by principles. Even discounting the smaller and the more radical groups demanding national health insurance, we still have the A. F. of L., the C. I. O., the National Women's Trade League, the United Mine Workers, and the Association for the Advancement of Colored People demanding national health insurance. These represent a lot of votes. I am sure they represent more votes than have yet been mustered in favor of equal rights for Negroes, and look what has been accomplished in this direction within a very short time! If this array of political strength is not enough to shock the medical profession out of its lethargy, then we are hopelessly lost and there is no use continuing the struggle.

What, then, will be the future of the voluntary prepayment plans for medical care—both commercial and non-profit? Those demanding national health insurance were generous enough to state that the voluntary plans should continue in operation after the inauguration of national health insurance. This, of course, was but a courteous gesture since it would be impossible for voluntary plans to compete with a government plan. The handicap would not be one of cost, because the voluntary plans can do the job cheaper than the Government can. But the fact that the government plan would be supported at least one-third by tax money, and that everyone would have to pay this tax, whether or not he subscribed to a voluntary plan, would dissuade the taxpayer from supporting two plans at the same time.

Since it is impossible for voluntary plans to survive if and when national compulsory health insurance comes, we are going to have one or the other type of prepayment health insurance—not both. So, the future of the voluntary plans depends entirely upon the prevention of the enactment of national compulsory health insurance legislation.

This cannot be prevented through political manipulation. It is my considered opinion that, if left to popular vote, this legislation might pass today. Certainly the strength mustered in its support at the National Health Assembly surprised even its protagonists—and was something of a shock to me.

But this disastrous legislation *can* be prevented if the voluntary plans meet every *reasonable* demand for health insurance. I specify "reasonable demand" because, as all of us know who are familiar with the problems involved, some of the demands expressed at the National Health Assembly are impossible of fulfillment at the present time, and for some years to come.

There were unanimously adopted by the Medical Care Section seven criteria for measuring the effectiveness of prepayment plans in meeting the medical care needs of the people. I shall discuss only the more important of these as they point the goals which must be reached by voluntary prepayment plans if they are to be considered adequate to the people's needs.

The first criterion is "The extent to which a prepayment plan makes available to those it serves the whole range of scientific medicine for prevention of disease and for treatment of all types of illness or injury." To meet this criterion, voluntary plans must be in a position to offer as comprehensive a coverage as the public demands, regardless of cost. Since many people neither desire so complete a coverage, and are unwilling or unable to pay its cost, this means that plans will have to offer more than one type of contract. This will not be at all difficult once a competent actuarial service is established. I can think of no good reason for limiting the offering of a prepaid medical care plan to a single type of contract. We must always, of course, offer a contract that is within the economic reach of the low-income groups who must bear all or part of its costs. But these large union groups are demanding a much more comprehensive service, and are willing to pay for it. We simply *must* be in a position to offer them a contract that meets their requirements, or we shall not only be forced out of business but also we shall have compulsory Government health insurance as a reality instead of as a threat.

The fact that the fee schedules for the low-income group contracts are inadequate for the higher-income contracts need give no physician any concern. It is quite easy to arrange a separate fee schedule for each type of contract. For the higher-income groups, the fees should be higher, and should correspond to the fees normally charged such groups. The wealthier groups expect that—in fact, I am sure that they would demand it, because they do not want to be regarded as charity patients—and they are willing to pay the additional premium for their coverage.

What can it matter to the participating physician whether the patient pays the bill from his income, or whether the bill is paid by the medical care plans, so long as the amount paid corresponds with the fee customarily charged in that income level? Even if there is some objection to such a procedure, the alternative is to lose millions of potential patients to employee-benefit associations and medical cooperatives operating their own clinics and hospitals. I cannot stress too strongly the fact that this movement has already reached the point where the medical profession has the choice only of making a reasonable effort to meet the requirements of these large groups of consumers of medical care, or of watching the private practice of medicine in this country being rapidly strangled by either cooperative or Government medicine. No other alternatives are left. All other alternatives have been lost in the ten or fifteen wasted years in which organized medicine has pursued an entirely negative course in dealing with this social problem.

The next point of the greatest importance is that these large groups will not be satisfied with anything short of uniform coverage for their members regardless of their place of residence. They simply will not deal with 51 separate Blue Shield plans. Already the United Mine Workers, with 400,000 members, have a 10-cent per ton levy solely for health and welfare. As we assemble here, a union with more than 1,000,000 members is negotiating with a large industrial corporation for 10-cent per hour increase in wages, to be devoted exclusively to a health and welfare program. Another union, with more than 1,000,000 members, has already appointed a medical advisory council to formulate a prepaid health program for its members, to be paid for by a similar 10-cent per hour raise in pay.

Is organized medicine guiding and directing these programs? It is NOT! I happen to know some of the members of this medical advisory council of this gigantic union. I can tell you that

they are openly committed to Government compulsory health insurance. Let me give you the names of some of them—Fred Mott, who is directing the Government medicine program in Saskatchewan; Dean Clark, who is director of H. I. P. in New York; Jack Peters, who is Secretary of the Committee of Physicians for the Improvement of Medical Care. I can tell you further that the plan for the medical care of this large union, which was proposed at the first meeting of this medical advisory council, was similar to that of the Health Insurance Plan of New York—the establishment of clinics in every center of this union population, and these clinics to be operated by salaried physicians. This Association is on record as opposing such a plan for medical care.

Why was not organized medicine approached for advice and counsel in the establishment of these huge programs for prepayment of medical care? I'll let *you* answer *that* question. But doesn't it shock you, doesn't it give you a feeling of insecurity that the leadership of these great movements, which will exert the most profound effect upon medical practice in this country—that the leadership in these movements has slipped from the grasp of organized medicine? I can tell you that it disturbs me deeply, and that I am convinced that the cause is lost unless you take prompt and effective action to regain control of medical practice in this country. I say "regain" because I am afraid you have already lost it, whether you realize it or not. And you are not going to regain it through the methods you have followed during the past ten years.

Some three weeks ago I had a conference with one of the most powerful, if not the most powerful, labor leaders in the United States. This organization, of which he is the President, controls many labor unions with millions and millions of members. He has already started this movement for a prepaid medical care program in two of his largest unions, and he assured me that it would be carried on throughout the labor empire that he controls. I am violating no confidence when I tell you that he exhibited a strong bias against the attitude that organized medicine has displayed up to the present moment. His closest welfare advisers made it very clear to me that they would deal with the voluntary non-profit prepayment medical care plans *only* if these plans met their requirements to a reasonable degree. They did not display an adamant insistence upon 100 per cent performance at once but they set forth a few principles upon which they would not compromise.

The two most important principles upon which they would insist in full were uniform coverage in every area in which their members reside, and a single contract with one labor-management board regardless of the number of individual medical care plans which would be involved in providing the service. There would be no negotiation with reference to these two principles—we would have to accept them or reject them as they stand.

These gentlemen also made it clear that they were opposed to indemnity insurance and would accept this type of contract only as a temporary expedient. They are committed to the principle of the service contract.

These requirements can be met, and met easily. But they cannot be met so long as our vision is limited by the boundaries of the small areas in which we live and practice medicine. The problem is one of national scope, and it cannot be solved by State and County Medical Societies acting independently. I can assure you that you will not even be listened to, much less dealt with, upon any such basis.

Neither one of these requirements can be met, however, without the necessary machinery at the national level of Blue Shield Plans. You know full well that it would be impossible for 51 separate Blue Shield Plans to get together around a table and agree upon a uniform contract. Even if this were possible in one case, you must remember that different groups may demand different degrees of coverage, and this painful process would have to be repeated each time we were approached by a national group. The time required to effect such agreement would defeat us. These prospective clients demand an answer within days—not months.

For these reasons, only a National Service Agency, controlled by all the participating Blue Shield Plans, can possibly meet this urgent need. My own concept of such an agency is this:

1. It would be controlled by a board of directors elected by the participating Blue Shield Plans.

2. It would underwrite medical care programs of national scope; and, in turn, would pass on to each local plan concerned the share of the business that lay within the area of that plan.

3. If any local plan desired to accept the entire risk of additional coverage offered in any

contract, it would be free to do so. If, on the other hand, any local plan declined to carry the additional coverage demanded, the National Service Agency would carry the added risk, and pay the local plan for all such service rendered.

4. The National Service Agency would work *only* through local plans. It would write no contracts in any area covered by a plan that did not involve two or more plans, and it would offer no contract of itself except in areas not covered by any Blue Shield Plan.

5. The National Service Agency would have no control over any local plan other than to see that agreements entered into with subscribers were carried out.

6. The existing organization of Associated Medical Care Plans would not be disturbed. The National Service Agency would be an underwriting organization, and *not* one of control.

As a physician, who is intensely interested in the future of medicine in this country, I cannot see the slightest danger in such a project. Each local Blue Shield Plan would preserve its present degree of autonomy, and the national agency would be one that served all the plans rather than one that *controlled* all the plans. And, don't forget one thing—it is either some such arrangement or be forced out of business. If we are going to be in a position to serve these new millions of organized consumers of medical care, we had better announce that fact right now and liquidate our Blue Shield Plans. Sudden death is much preferable to a lingering, painful death; and slow death for us is certain—and maybe not so slow at that—unless we get in step with the rest of the country.

I mentioned earlier that straw men were being set up so that they could be knocked down. Perhaps the largest of these straw men is that this is just a scheme for Blue Cross to gain control of medical practice in this country. This is not only the largest of the straw men, it is also the most fragile. I work just as closely with the Blue Cross Commission as I do with the Blue Shield Commission. I have not seen the slightest evidence of any desire—much less, intent—on the part of the Blue Cross Commission to exert even the slightest control of the practice of medicine. The cry of "No Merger" has been raised against the two Commissions. I have been instructed by the Joint Executive Committee of the two Commissions to state that merger of Blue Cross and Blue Shield has never been considered. All that has ever been seriously proposed is a federation of the two groups for the single purpose of promoting the success of both. The leaders in Blue Cross believe, just as do the majority of leaders in Blue Shield, that we must effect enough cooperation between these two great organizations for us to offer prepaid medical and hospital care in one package. The public cannot understand why they should be forced to join two different organizations to protect themselves against the cost of illness — and, when you think of it, it is hard to explain. But joining hands solely for the purpose of offering prepaid health protection in one unit is a far cry from merging the two organizations under single control.

I beg of you not to be misled by any such vicious propaganda. So long as I remain in this position I shall defend medical practice just as zealously as I uphold the principles of Blue Cross. If there were any real areas of conflict between these two organizations, I would certainly discover them at once; and I can find none.

You did me the great honor last year of inviting me to address you at Atlantic City. I spoke to you very frankly at that time, pointing out the dangers to American medicine from within. That the majority of you approved my remarks, and believed in my complete devotion to our medical profession, is indicated by the fact that you have again invited me. I doubly appreciate this present honor; and I am again forcibly reminded of my great responsibility to the medical profession. I shall not, in the slightest, shirk this responsibility nor shall I ever compromise with my obligation to American medicine.

But my heart grows heavy as I see the indifference of many physicians to the threat to freedom in medicine that is becoming more menacing each day; and as I encounter the petty, selfish greed of a few physicians who had rather see the entire structure of American medicine wrecked than to concede one small personal advantage in the general interest.

If we get socialized medicine in this country, it will be organized medicine, and only organized medicine, that has brought this curse upon us. We, as physicians, will have only ourselves to blame. If I were among the group that wants socialized medicine in this country—if I were Channing Frothingham, or Ernst Boaz, or Jack Peters, or Michael Davis, or Isidor Falk — I would not exhaust much energy in making a great personal effort—I would relax and let organized medicine do the job for me. All that is necessary to bring socialized medicine to this

country within a very short time is for organized medicine to pursue the same course that it has pursued for the past ten years.

The demand for more comprehensive medical care, and for an effective means of budgeting its costs, has grown, within ten years, from a whisper to a roar. Our people will not be denied much longer. If the medical profession does not at once assume the leadership, if it does not at once cease its double talk and double dealing with the voluntary non-profit prepayment plans, and throw its influence squarely and honestly behind these plans, we are going to have compulsory government health insurance in this country within three years.

I give free medicine a lease on life of three years solely because other heavy financial commitments of the Government will preclude the assumption of the additional burden of compulsory health insurance. The Marshall Plan and the rearmament program will keep the Government, and the taxpayers, strapped for the next few years. But, within three to five years—and I think it will be nearer three—either these measures to restore peace will have been successful, or we shall again be in a war. I believe we shall have peace; and just as soon as the taxpayer is relieved from this terrific burden of his investment in peace, you may be sure the politicians will be ready to impose upon him the burden of a compulsory health insurance program—that is, unless by that time we have demonstrated that voluntary health insurance is a completely satisfactory answer to the problem. And I would emphasize further that, if we start right now, it will take at least two years to effect an organization that can do this job. We cannot afford to waste any more time in fruitless discussions that lead us nowhere. We must decide right now whether we are going to unite in this effort; and, if we are, we must cease all delaying and obstructive tactics.

Don't be lulled into a sense of security by such able studies on socialized medicine as have been made by the Brookings Institution, and the National Industrial Conference Board, and other capable agencies such as these. Of course, every thinking person is convinced that socialized medicine would be a great mistake—a costly mistake both in money and in health. But this issue will not be decided by wisdom. It will be decided entirely by emotion. Like President Coolidge's preacher, who was "agin sin", everyone is against sickness and death. Only a small minority of our people can understand the dangers of socialized medicine—all they know is that they want everyone to have good medical care, and they are not capable of choosing between the various ways in which medical care can be better distributed. Only a *"fait accompli"* will convince them—and so we have only a short time in which to show them an accomplished fact.

It is useless for the medical profession to undertake the education of our people to the dangers of socialized medicine. Our public relations have been so miserable in the past few years that a majority of our people suspect us of having only a selfish, personal interest in this question. I honestly believe that the medical profession does more harm than good when it attempts to decry socialized medicine—our motives are too suspect.

Don't be misled with such absurdities as the assurance that the Government cannot make you practice medicine if you do not want to. You see what has happened in England. The members of the British Medical Association voted at first to have nothing to do with government medicine. The majority was heavy—80 per cent pledging themselves to remain outside the Government plan. But, as the deadline for participation approached, British physicians by a small majority, voted to accept the government plan.

How long can you hold out in a strike against the Government? How many of you could stick it a year with no income? And how many of you would stick it if you saw a minority group collecting all the gravy? You are trained in medicine. How many of you would be willing to forsake medicine and embark upon another career?

Don't let anyone fool you! If Government medicine comes, 90 per cent of you will be forced by circumstances to accept it, no matter how bitter a pill it will be for you to swallow. So, the only way to prevent this tragedy is to stop it before it arrives—there is little you can do about it after it comes. The medical profession *can* prevent this tragedy, but only by positive action that will meet the reasonable demands of these large groups. Consistently negative action has brought us to this critical juncture, and has

played directly into the hands of the enemies of free medicine. Time is running against us. We can not longer delay.

This convention, which is about to open, promises to be the most important in the hundred years of existence of the American Medical Association. The great work of the past hundred years can be undone over night by unwise action during this week. I beg of you to weigh carefully the issues that will be presented. I ask you to weigh them in the light of the events of the past few weeks. I am as ertain as I am that I stand here that, if this convention fails to encourage and support the expansion of the Blue Shield movement, the death knell of free medicine in this country will have been sounded.

Health Activities

THE HEALTH ACTIVITIES BOARD of the Association has a full program of work for the county societies for the current year. All phases of its program are now under way. *THE BOARD* serves as the public health and public relations medium for the association.

HEALTH COUNCILS

A foremost project of *THE BOARD* is the formation of Health Councils in each of the 14 counties of the state. A Health Council is to be comprised of professional and lay members of the community who are particularly interested in the health problems of their own locality. The Council will also serve as a clearing house for the various drives for funds for the various health causes.

Mohave County Medical Society has formed a Health Council at Kingman which is now proceeding "full steam ahead" in local health matters. The Council met for the first time on May 11 with fifteen in attendance. It has convened monthly since, the membership on the Council now totaling 40! The Council is fully organized with its panel of officers and committees.

Local health matters handled to date are: a rabies situation, exceedingly dangerous because of stray dogs. As a result of the work of the Council, Kingman has now established a dog pound and a veterinarian is to be brought in at periodic intervals to vaccinate family pets and keep the situation under control.

Pasteurized milk will soon be the rule and not the exception, as at present, at Kingman. The Health Council is studying milk codes and the adoption of a Milk Ordinance for Kingman is imminent.

Better disposal and drinking water facilities at the grammar school are being installed as a result of Council recommendations. The Kingman Health Council is also putting on an "alive" public health program. They will have a booth at the County Fair in September with simple exhibits from the American Medical Association. Pamphlets will be distributed from the booth and films will be shown on Polio. Upon termination of the Fair, the Council plans to move its exhibit into the High School for a few days' additional showing.

Yuma Society has its health council formed, with *Maricopa, Pima* and others ready to get under way during the late fall.

HEALTH ACTIVITIES BULLETIN

Beginning with mid-September, the *HEALTH ACTIVITIES BOARD* will begin the publication of its Bulletin, a 24 page publication to appear four times during the current year, with an initial circulation of 5,000. The September issue will be devoted to child health and will feature articles by Dr. W. W. Bauer of the American Medical Association, and by Dr. Fred V. Hein of the same organization. Dr. Bauer's article will be entitled "Who Trains Your Child?" and Dr. Hein's, "Physical Education in the Modern School." Mr. J. J. Clark, Superintendent of the Osborn School systems of Phoenix, will be guest editorialist, writing on "The Run of-the-Mill Health Problems of the Grammar School." There will be a symposium on child health with eight or ten pediatricians and general practitioners participating. Miss Lydia Potthoff, R. N., will have an article on "Health Problems in the High School as the School Nurse Finds Them." The December issue of the BULLETIN will be devoted to such health services as Blue Shield, Blue Cross, Health Councils, Allied Health Agencies, and the like. The two remaining issues will be devoted to "His Health," featuring diseases or ailments common to the "male of the species," special circulation of the number to be among service clubs. The fourth issue will be devoted to "Her Health," featuring ailments common to the "female of

the species," with special distribution to be among Woman's organizations. The BULLETIN will be supported by advertising. The goal is a state-wide alertness to health.

"KNOW YOUR M. D."

The above is the title of a pamphlet being prepared by the *BOARD* for fall release — late October. This publication will set forth the ingredients that go into the making of a doctor of medicine and surgery. The physician's education, his licensure, his fields of practice including the specialties, his ethics . . . all facets of his practice will be covered in an attractive pamphlet designed for distribution from the physician's office. The pamphlet will carry no advertising.

PRESS PROGRAM

A weekly column in the Phoenix daily of widest state circulation will be under way as soon as the editor in charge returns from vacation. The column will be titled: "TO *YOUR* HEALTH" and the releases supplied by physicians state-wide. Each subject is to be of local and timely interest. A similar press program is being set up with the Tucson press. The smaller dailies and leading weeklies will be brought into this program as the year advances.

RADIO BROADCASTS

For several years past, the Association, first through its former Committee on Public Health Education and now through its stream-lined *HEALTH ACTIVITIES BOARD*, has conducted a weekly broadcast over the ABS network (7 stations). It has been the custom to secure these transcribed programs from the American Medical Association whose service in this respect is the finest. The current series is entitled—"EVERY DAY HEALTH PROBLEMS." There has always been a sound public response to these broadcasts which go on the air as "THE MEDICAL QUARTER HOUR" — broadcasts "IN THE INTEREST OF *YOUR* HEALTH" —the slogan of the *BOARD*. Participation in an American Medical Association nation-wide broadcast will be announced at a later date when the A.M.A. has the details ready for release.

COMMUNITY HEALTH SHOWS

The *BOARD* is advocating a Community Health Show for each of the 14 counties of the state during the current year. Mohave Society is leading off with its health display during the County Fair early in September. The Central Office will secure the exhibits, pamphlets, films and other accouterments for these shows, fairs, or programs as they are designated locally. The "shows" are to be practical, simple and of appeal to the public without cost to them. The idea is catching on and the 14 county societies will, no doubt, set up their respective shows duning the year. A state-wide Health Activities Conference is being planned for January at Phoenix.

SUMMARY

The *HEALTH ACTIVITIES BOARD*, newly created in 1947 and amalgamating the various association committees on public health and public relations, is assured of success in this extensive program as the 14 county societies are supporting it with their professional "might and main." Truly, these programs are "IN THE INTEREST OF *YOUR* HEALTH" so far as the public is concerned.

IMPORTANT NOTICE
Arizona Medical Journal

Due to the rapid growth of Arizona, added interest shown by the medical profession and increase in circulation of the Medicine Journal, the Editing and Publishing Committee have decided to release the Journal monthly instead of bi-monthly. The Editing Board has increased the number of associate editors, whereby they will supply sufficient material to warrant this change. This change will become effective January, 1949.

ARIZONA MEDICINE

Journal of

ARIZONA MEDICAL ASSOCIATION

Vol. 5 September, 1948 No. 5

ADVERTISING AND SUBSCRIPTION OFFICES

J. N. McMEEKIN, Business Manager, 418 Heard Building
Published at 142 South Central Avenue
Phoenix, Arizona

Eastern Representative
Cooperative Medical Advertising Bureau
535 N. Dearborn St., Chicago

Editorials

Vagotomy

The great majority of peptic ulcers, especially of duodenal ulcers, should be able to be managed adequately on a medical regime.

From time to time new surgical methods for the treatment of peptic ulcer are advocated. Enthusiasm in the initial phases of the treatments have had to be tempered by the realization that the results were not as anticipated a few months or years following such treatment. Thus pyloroplasty and gastroenterostomy were tried and found wanting only after many years of utilization of them in treatment, and after overcoming the enthusiastic bias of some surgeons. Subtotal gastrectomy has been utilized with far greater efficacy than any other surgical procedure so far advocated.

Lester Dragstedt's work on section of the vagi nerves has shown that by interruption of central neural control there is diminished gastrospasm and reduction of gastric acidity in the stomach. At the expense of improvement in these troublesome features more or less constantly present in peptic ulcer, dilatation of the stomach and retension of gastric secretion and food remnants may occur following the nerve section.

In dogs in which gastric neurectomy has been performed, within a space of two years there has been restoration of pre-operative gastric acidity levels and normal gastric motility. It is not conclusively proven that such may not be the case in humans.

The enthusiastic early reception of vagotomy as a treatment for ulcer is only now beginning to be moderated by realization that it, along with all other surgical procedures, may be followed by failures. What the ultimate percentage of failure will be, still cannot be predicted. Recurrent ulceration may occur after vagotomy. Dr. Waltman Walters of the Mayo Clinic has reported five proven recurrent ulcerations in seventy-seven of his cases.[1] In addition to simple recurrent ulceration there have been further complications of perforations and hemorrhages of recurrent ulcers. In other cases patients have suffered with belching of foul-smelling gas, fullness, bloating after meals, nausea and diarrhea in some instances. Prolonged motor disturbances have occurred in some, and even inconstant post-operative reduction of acidity.

Until such a time as accurate statistical proof of the true permanent value of vagotomy in peptic ulcer is available from the large research centers the most sound treatment in the patient requiring surgery is by means of subtotal gastrectomy.

(1) Personal communication to the author.

A. M. A. GOLF TOURNAMENT

In the annual Golf Tournament of the American Medical Association held in Chicago during the June meeting, Dr. E. P. Palmer, Jr., of Phoenix won the 18 hole event and the Golden State Trophy with a score of 75. Dr. Duke Gaskins, also of Phoenix, was the runner-up and winner of the Ben Thomas Trophy with a score of 80.

Dr. C. R. K. Swetnam

DIED AUGUST 6, 1948

WHEREAS, God in His infinite wisdom has seen fit to call to a higher sphere of usefulness, Dr. Charles Randolph Keith Swetnam, one of our most highly esteemed colleagues, and,

WHEREAS, Dr. Swetnam was a member and past president of this Society, a member and past president of the Arizona State Medical Association, a member and past president of the Prescott Community Hospital Staff, a member of the American Otological Society and a Fel-

low of the American College of Surgeons, and,

WHEREAS, His Christian fortitude characterized him as an exemplary citizen and devout communicant and vestryman of the Episcopal Church, his unfailing loyalty to christian knighthood found him so recently Past Grand Commander of Knights Templar in Arizona, and,

WHEREAS, He gave unstintingly of his time and skill to aid the health and hearing of Yavapai County children,

THEREFORE, Be it resolved:

That in the death of Dr. C. R. K. Swetnam, the Yavapai County Medical Society has lost an active and able member, a capable surgeon; and be it further resolved,

That the secretary be instructed to spread these resolutions on the Minutes of the Society, and that a copy be sent to relatives of the deceased and copies furnished the local press, Arizona Medicine, the American Medical Association and the American College of Surgeons.

For the Society—
ROBERT N. LOONEY, M. D.
ERNEST A. BORN, M. D.,
C. E. YOUNT, M. D.
Committee

A.M.A. MEMBERSHIP AND FELLOWSHIP

Every member in good standing in the constituent medical association of the state in which he is engaged in practice whose name is officially reported to the Secretary of the American Medical Association for enrollment becomes automatically a Member of the American Medical Association and is not called on, as such, to pay any dues or to contribute financially to the Association.

Members of the American Medical Association who graduated at recognized medical schools are eligible to apply for Fellowship.

To qualify as a Fellow, a Member in good standing is required to make formal application for Fellowship, to pay Fellowship dues and to subscribe for *The Journal*. Applications must be approved by the Judicial Council. Fellowship dues and subscription to *The Journal* are both included in the one annual payment of $12.00, which is the cost of *The Journal* to subscribers who are not Fellows.

Only those Members who qualify as Fellows are eligible for election as officers, may serve as members of the House of Delegates, may register at the annual sessions of the Association or may participate in the work of its scientific sections.

Members of constituent state medical associations pay dues to those bodies, but as Members they pay nothing to the American Medical Association. Fellows pay dues and subscription to *The Journal* in the sum of $12.00 a year, which has nothing to do with county or state dues.

According to an amendment to the By-Laws of the American Medical Association, no physician may be officially recorded as a Member of the American Medical Association except on the basis of membership in *one* constituent state medical association and that one the association of the state in which the physician concerned maintains legal residence and engages in the practice of medicine.

Reprinted from Los Angeles County Bulletin.

SPECIAL BULLETIN FROM STATE DEPARTMENT OF PUBLIC HEALTH

There's a big discrepancy in the number of cases of poliomyelitis reported to the State Department of Public Health and those actually occurring. A recent survey made by Dr. J. P. Ward, Director of the State Department of Public Health, showed that forty-eight cases had been reported to the State Department since the first of January of this year, while a check of hospitals and other organizations showed that actually there had been sixty-three known cases of this disease. Doctors are asked to report their cases of poliomyelitis promptly to the State Department. It is only by this way that a true picture of the poliomyelitis situation in Arizona can be seen.

Many doctors have been very slack in reporting their cases of infectious disease. This is a reflection on the medical profession as they should not allow the newspapers to find out and report to the public cases of these diseases before they are reported to the official agencies. The State Department of Public Health wants to assist the physicians in keeping down infectious diseases in Arizona, but this cannot be done unless the physicians do their part by reporting these cases early.

"GARDEN GROVE Sanitarium"

PEACE, relaxation, freedom from worry encourage quick return to health. Find them at Garden Grove in friendly smiles, in thoughtful attention, in the quiet charm of exquisite gardens.

Here is a rich and famous tradition of fine living . . . comfortable accommodations, fine appointments, an excellent cuisine and an attentive staff. A fifteen acre garden resort, thirty miles southeast of Los Angeles, Garden Grove has a complete diagnostic and treatment clinic and resident physicians. Excellent recreational programs. Write for booklet . . . address request to Dept. C-3. Phone Garden Grove 2121.

GARDEN GROVE SANITARIUM • GARDEN GROVE, CALIFORNIA

Report of Delegate

House of Delegates, American Medical Association, June 21 - 25, 1948

For a period of several days preceding the opening of the annual scientific and technical portions of the American Medical Association Convention, several national societies of specialists, concerned with different aspects of medicine, met for special programs. The Board of Trustees, the Officers, and the many Councils and Committees met also to consider matters of concern to each group, in order to expedite the work of the House of Delegates.

At this session of the House, the Judicial Council presented a revised "Code of Ethics" to guide the moral thinking and the spirit of practice of American physicians. This new Code was adopted with miner changes. Culminating two years' work also on the part of a special committee, a new Constitution and By-Laws for the A. M. A. was worked over paragraph by paragraph and adopted on motions duly made, seconded and carried. A copy of the revised Constitution and By-Laws will be published after a Committee appointed to edit them has submitted its report.

During the sessions of the House, several distinguished visitors were invited to the rostrum. Among these gentlemen were: Dr. Olin West, former Secretary for the A. M. A. for many years; Rear Admiral C. A. Swanson (MC), U. S. N.; Dr. R. Scott Stevenson, London, England, representing the British Medical Association; Dr. H. B. Washburn, St. Paul, Minn., President of the American Dental Association, and Dr. Paul Hawley, now associated with the Blue Cross - Blue Shield organizations. The addresses of these gentlemen are printed in the July 3 edition of the A. M. A. Journal, and are available to each member who desires to read them.

An unusually large number of resolutions were introduced into this session of the House of Delegates. Consideration was given to the various prepayment plans for hospitalization and medical care, the veterans' care problems, veteran administration policies for veteran care and hospitalization, the practice of medicine by hospitals, questions involved in cooperation with the American Red Cross in its proposed nationwide blood bank system, the training, distribution and allocation of internes and residents, the creation of a new Council on Rural Health, the continued expansion of glorification and rightful place in American Medical Practice of the General Practitioner, and several State Resolutions, including one from Arizona, which discussed the cancellation of Blue Cross coverage of the employees of the A. M. A.

Specifically, a short discussion in this report of the actions taken by the House of Delegates will be of interest to our members. Let it be stated that the House acts upon these problems only after all matters introduced for consideration has been handed to one of the Reference Committees. The Committees hold hearings for discussion, debate and opinion by any interested physician, in order to bring to the House their recommendations, based upon thorough analysis. In this manner, the system employed by the House in its organization and operation tend to avoid hasty actions based on insufficient or inaccurate information.

The House re-iterated its policy of requesting its Speaker to name the Reference Committees for each Session at least one month in advance. Each constituent state association is therefore asked to amend its by-laws so that the term of its delegate or delegates will begin on January 1 each year following their own annual meeting. This action is recommended, so that the Speaker will have available a complete list of the delegates and alternates for selection on the Reference Committees.

The House expressed the following attitude toward insurance coverage for the A. M. A. employees: It recommended that every sincere effort be made, on the part of the General Manager and the Board of Trustees, to procure insurance coverage through existing Blue Cross and Blue Shield local organizations at the expiration of the present contract with a commercial carrier.

In the matter of a new Council, it directed the Board of Trustees to create a Council on Rural Health, with the employment of a field secretary, thus divorcing the previously existant Committee on Rural Health from its first parent, the Council on Medical Service.

With reference to the Red Cross blood bank program, the House indicated that no change was to be made in the "approval in principle" of this project as adopted in Atlantic City one year ago at the 1947 session, and again at the Cleveland session, January, 1948. This approval was again affirmed because of the possibility of a national emergency in the near future during which large amounts of blood would be needed, and because of the place of the American Red Cross in all disaster relief programs. However, this "approval in principle" was not a one-way ticket for the Red Cross to go ahead and establish blood banks wherever and whenever it pleased, under its individual initiative and administration, because the House had this to say to the Red Cross; "That we would discourage your interference in localities, by the establishment of another Blood Bank, in competition with medically supervised banks now operating

efficiently and adequately to meet existing needs." Furthermore, our "approval in principle" also implies

1. "that your blood bank locally must be under the control of the County Medical Society."
2. "The local County Medical Society must be the initial contact in contemplation of inauguration of a new blood bank."
3. "No publicity or news releases can be given to this project, except by mutual consent of the County Medical Society and the Red Cross."
4. "Any differences of opinion in the establishment or operation of a Red Cross blood bank in either administration or technical detail shall be arbitrated on a State level by a Joint Committee of the State Medical Society and the Red Cross."
5. A Committee of the House of Delegates to be composed of nine members was authorized in order to meet with representatives of the American Red Cross, to discuss matters pertaining to this blood bank program on an overall national level.
6. The House, furthermore, emphasized to the American Red Cross one of its tenets on medical care, to-wit, that "any provision of medical service supposedly free in its supply to anyone without regard to his or her ability to pay is in opposition to the principle that it is the responsibility of any individual to assume the obligations of medical expense just as he does for any other living expenses, so long as that individual can pay.". The House deplored the use of the term "free blood for everyone" by the Red Cross, in its publicity.

In the matters pertaining to Medical Education, Internes, Residents and the like, the House requested the Council on Medical Education and Hospitals to investigate the alleged Communistic activities on the part of certain members of the Association of Internes and Medical Students, and the Association of International Medical Students.

The House directed the Board of Trustees to limit nominations for one of the members of the Council on Medical Education and Hospitals to a private general practitioner of medicine, who is not a faculty member of any medical school, nor on the staff of any hospital associated with a medical school or university. This action again expressed the keen admiration for the good sense and judgment of the general practitioner, on the part of the House of Delegates.

Furthermore, the House approved the recommendation by resolution that qualified general practitioners have full staff privileges and representation on hospital staffs, and that full

utilization for the training of general practitioners be made by all Community Hospitals.

Other resolutions adopted covered a variety of subjects. Among these was one endorsing the suggestion that physicians should be paid for their services while engaged in the examination of inductees during the forthcoming Selective Service Training Program. It also approved a resolution suggesting a much closer integration of the Medical Services of the Army, Navy and Air Corps.

In the consideration of the National Health Assembly, several proposals were introduced reaffirming the position of the A. M. A. with respect to our previously expressed tenets for medical care. The House desired that the representatives of the A. M. A. reaffirm to the Officers of the National Health Assembly that the "Means Test" be utilized as a pre-requisite to free Medical Service.

One of the States introduced a resolution dealing with questions involved in Civil Rights of all citizens, particularly as they apply to a physician born with chocolate colored pigmented epidermis. The House reaffirmed its previous policy, that o frecognizing the right of each component county medical society to be the sole judge as to whom it shall elect to membership, provided the applicant meets the medical requirement for membership in all respects.

During this session of the House of Delegates, a special committee was appointed by the Speaker for the purpose of studying the many resolutions pertaining to the questions involved by Hospitals of this country engaging in the practice of medicine. Similar resolutions dealing with this topic have been acted upon by the House for over ten years past, with, apparently, negative results to date.

Various groups and scientific organizations representing the radiologists, pathologists and anesthesiologists have been quite vigorous in their attempts to get this question settled. The Board of Trustees, acting upon instructions of the House of Delegates, has met with representatives of the American College of Surgeons and the American Hospital Association, as well as other interested groups, and comprehensive reports have been issued and acted upon heretofore. Since that time, 1942, a number of additional resolutions have been acted upon by the House of Delegates.

In a complete review of all previous resolutions, as accepted and adopted by the House, it seems that certain overall policies have been suggested, agreed upon, and accepted, namely: 1—that some positive action be taken against hospitals or other institutions by the A. M. A. where investigation has proved that these domiciles for the care of the sick and injured were not operating under the broad general principles of ethics expounded by the American Medical

Association; and, 2—that individual physicians could be disciplined for unethical conduct only according to the code of ethics for the control of such conduct as previously established at the County Medical Society level. These codes of ethics, almost without exception, are modeled after the master code established in years gone by, by the National Body through its House of Delegates and Judicial Council.

The Committee appointed to investigate this problem fully, was unable to arrive at satisfactory conclusions; even at this time, because of the nature of the complex situations involved, and the diversified ramification of thoughts and opinions expressed during its hearings. Many of these were contradictory, adding confusion to the minds of the Committee. It was found also, that this matter of hospitals practicing medicine in one form or another, placed before the Commissions of the Blue Shield and the Blue Cross problems of grave import, especially in their endeavor to cooperate in furnishing medical service to patients under physician-sponsored programs. The Committee reported, however, that definite assurance was obtained by these Medical and Hospital Service Plan Commissions, that no definite actions would be attempted until such time as the relationships inherent in the solution of the problem have been agreed upon by the official bodies of the Specialty Groups involved and the American Medical Association. The Blue Shield Commission agreed furthermore, that its services should and will be made available on a consultative and cooperative basis to the Specialty Groups concerned and to the A. M. A. whenever and wherever desired by these bodies.

This special Committee found also, much to the surprise of some delegates and groups, that resolutions can be passed, suggestions can be made, and codes of ethics propounded until dooms day, yet, after all, the American Medical Association has no inherent or statutory police power to enforce adopted policies, or anything else, upon hospitals, or other agencies or institutions designed for the care of the sick. The Committee found differences in State laws under which these institutions operate, this fact serving only one purpose, of course, that of adding additional confusion to the battle line horizon.

So, the solution of the problem remains unsettled. The Committee, however, did suggest two recommendations which were adopted by the House of Delegates, namely: 1. The Bureau of Legal Medicine and Legislation of the A. M. A. was instructed to make a study of the various State Laws which define the legal status of corporations attempting to practice medicine in the various states, defining in each instance, the differences in the various state laws concerned with this problem. If necessary, the Bureau was instructed to prepare legislation which will define all of these matters so that uniform legislation simplifying legal interpretations can be prepared and supported by the A. M. A., and that

there will be assurance toward the legality of the actions of the House of Delegates; and, 2. The House of Delegates requested the Board of Trustees to send at an early date an official communication to the medical schools and hospitals belonging to all national hospital organizations, informing them of the principles and policies of the House of Delegates concerning the practice of medicine by these institutions. This communication is to state that the A. M. A. will cooperate in every way with all hospitals, and asking them for immediate reciprocal agreement and assistance in the preservation of the private practice of medicine.

The House of Delegates declared itself in the matter of Crippled Children Services under the jurisdiction of the Federal Children's Bureau. A resolution was passed concerning the policy of the Children's Bureau relating to its ruling that only surgeons certified by the American Board of Orthopedic Surgeons should be approved by a State Agency for surgical services to children suffering orthopedic conditions, including prescriptions for prosthetic appliances. The House objected to this ruling, and instructed the Board of Trustees to send a written protest to the U. S. Children's Bureau against this policy, so that crippled children needing surgical or prosthetic care, or both, can be handled professionally by all Fellows of the American College of Surgeons, not by certified Orthopods exclusively.

A resolution was passed by the House relating to the four-point health program suggested and sponsored by the National Congress of Parents and Teachers. This resolution recommended that appropriate Committees of the various State Medical Societies enter into conferences with the State Boards of Health, the State Boards of Education, and the State Congresses of the P. T. A., in order to counsel, advise, guide and assist the National Congress of Parents and Teachers in attainment of mutual objectives, referring specifically to its four point Health Program. It was felt that this four point Health Program of the P. T. A. was in complete harmony with the ten point Health Program of the A. M. A.

Approved also was a resolution relating to Cancer Detection Centers, so that local medical groups would cooperate with the American Cancer Society in helping to formulate standards of procedures and conduct in the operation of cancer detection and diagnostic centers.

Another resolution directed to the Veterans Administration requested this governmental agency to place into uniform practice a "free choice" regulation for the medical and hospital treatment of veterans in service connected cases, and urged the various medical societies and associations to conform to this principle when making contracts or agreements with the Veterans Administration officials.

So important is the matter of Prepayment Health Insurance on a voluntary basis, that

the Speaker of the House was requested to appoint a special Reference Committee on Medical Service and Prepayment Insurance. This was done in order to facilitate this special committee to handle recommendations evolved as the result of the several pre-convention meetings of Blue Cross - Blue Shield Commissions, the address of General Hawley before the State Presidents Conference, and the meeting held on June 19 as arranged by the Council on Medical Service, and described in the following paragraphs:

On June 19, Dr. Carlos Craig, Secretary of our State Blue Shield, and the Delegate attended an all day meeting at the A. M. A. headquarters called by the Council on Medical Service, meeting with representatives of the Blue Cross and Blue Shield Commissions, together with about forty State Presidents or their representatives. Lively discussions pro and con on the proposed Blue Cross - Blue Shield merger were much in evidence, and a detailed report on the many speeches would be entirely too lengthy in this report. Suffice to say that three recommendations were passed by majority vote, to-wit:

1. That this body representing the constituent state medical societies of the American Medical Association go on record as approving in principle the organization of a national service agency for the enrollment of national accounts for medical and hospital service, and to act as the agent for existing non-profit medical and hospital plans with full cognizance of the local autonomy of state medical societies.
2. That the matter of the organization of such an agency be referred to the Council on Medical Service and that it gain data and advise the states what action they should take; and
3. That the Council on Medical Service should call a meeting of this type each year.

The House of Delegates approved in principle these recommendations and instructed the Council on Medical Service to carry on this further study with A.M.C.P. and report at a later date to the House of Delegates, on suggestions for the structural organization and proper function of a national enrollment agency to handle employees for insurance hired by corporations doing business on a national scale.

Other matters of interest approved by the House are summarized briefly:

1. The Board of Trustees of the A. M. A. can no longer assess Fellows of the A. M. A. for any purpose, except on approval of the House of Delegates.
2. Editorial policies of A. M. A. publications on the part of the Board of Trustees are, henceforth, restricted to conform with the policies enunciated by the House of Delegates.
3. The Veterans Administration from now on will be allowed a representative in the House of Delegates, along with the Army, Navy, and Public Health Service.
4. The House approved the expansion of the Washington Office, which is under direction of the Council on Medical Service. It directed the Trustees to provide funds for this purpose.
5. The House received a resolution providing for an increase in fee for life insurance examinations. Before acting favorably upon the suggestion, the House turned the matter over to the Bureau of Medical Economic Research for further study of certain conflicting elements. The matter will again come before the House at the next session.
6. The House endorsed the study now being made by the Bureau of Legal Medicine and Legislation tending to provide legal status of children born after artificial insemination.
7. Another resolution urged each local medical society to budget funds in support of the Woman's Auxiliary.

It was the privilege of your Delegate to attend

all meetings of the House of Delegates, as well as the sessions of the Council on Medical Service. He served also, as a member of the House of Delegates Reference Committee on Report of Board of Trustees, and Secretary.

Respectfully submitted,
JESSE D. HAMER, M. D.

TARRANT COUNTY MEDICAL SOCIETY

The second Southwest Regional Cancer Conference will be held in Fort Worth, Texas on October 12 at the Blackstone Hotel, under the auspices of the Tarrant County Medical Society and the Fort Worth Unit, Texas Division, American Cancer Society.

The one-day conference will consist of morning and afternoon lecture sessions, a clinical luncheon with an open forum question and answer period, and a public meeting in the evening.

Guest speakers at the conference will include: Dr. Chas. Huggins, Chicago, Professor of Surgery, University of Chicago; Dr. A. R. Curreri, Madison, Wisconsin, Associate Professor Surgery, Wisconsin Medical School; Dr. James Barrett Brown, St. Louis, Associate Professor of Clinical Surgery, Washington University School of Medicine, and Associate Professor of Oral Surgery, Washington University School of Dentistry, and Dr. Robert A. Moore, St. Louis, Professor of Pathology, Washington University School of Medicine.

There will be no registration fee. Further information about the conference may be obtained from the Tarrant County Medical Society, 209 Medical Arts Building, Fort Worth 2, Texas.

Tarrant County Medical Society
T. H. Thomason, M. D., Chairman
Cancer Committee
May Owen, M. D., Chairman,
Tarrant County Unit,
American Cancer Society.

RX, DX, AND DRS.

By GUILLERMO OSLER, M. D.

ARIZONA MEDICINE presents a new section, perhaps a new idea. A "Column" is a concise and fashionable way of telling news in general. Why not a column *for medical news?* Why not, indeed! It requires very little to start a clamor, once an idea is born, but there seems to be a need and place for a few paragraphs about *drugs, methods, medical progress,* and *personalities*—all as they interest or affect medicine in *Arizona.* It is intended that all items be topical, accurate, and confirmed by authors and consultants when necessary. The basic stock will be *fresh facts, recent reports,* and *occasional opinions,* plus a bit of sugar, spice, and garlic. Controversies are not intended, but comments will be welcome. The general public apparently has an enormous appetite for medical information. Daily papers, trade bulletins, "Time", "Newsweek", and even "Good Housekeeping" are able to go to press with news piping-hot and full of drama. They hand it out raw, technical, and often quite well, though carelessness and wrong judgments creep in. Most medical journals are handcuffed by the long intervals between submission and publication. Not ARIZONA MEDICINE! We have a short deadline, and can provide medical news up-to-date. So, greetings and saludos!

The Arizona attendance at sessions of the A.M.A. probably totalled forty-five. There were about a dozen members of the Auxiliary present. The state scientific contributions consisted of a paper by F. B. Schutzbank of Tucson on "Climatotherapy in the Treatment of Allergic Diseases," and an exhibit by Drs. Holbrook, Hill, Stephens and Kent of the "Treatment of Rheumatoid Arthritis." The Schutzbank report was given a spread in "Newsweek," where the value of climate, the relief from responsibilities, and the caution of Dr. Schutzbank were equally marvelled at. This is the first ARIZONA "quote" since the Cruthirds' burn-therapy was reviewed in "Time" a year ago. Dr. Holbrook has been named president of a new group, "The Arthritis and Rheumatism Foundation," sponsored by a potent list of societies and funds. The possible ARIZONA angles of this foundation remain to be seen.

Resection of tuberculous lungs has been a marvelous piece of progress. In 1938 it was either a mistake or folly; by 1941 it was being cautiously tried, but the mortality was 30 to 50% or more; by 1945 it had become feasible and safer in certain cases; and now a new phase appears, new even since Dr. Conklin's report in the July ARIZONA MEDICINE. An odd indication, plus liberal use of penicillin and streptomycin, have resulted in almost incredible results. Gale, Dickie, and Curreri of the Wisconsin General Hospital have just reported a series of 80 cases at the American Trudeau Society Meeting. All of the cases were "derelicts," with a chronic failure of healing—in 41 cases. thoracoplasty had failed; in 4 cases, pneumothorax had failed; and in 31 cases, a destroyed lung, lower lobe lesion, bronchostenosis, or tuberculous bronchiectosis had remained unhealed after prolonged rest. Forty-seven cases had pneumonectomy and 33 had lobectomy. The mortality was 3 cases in the first 90 days, and only 5 cases in the entire series during three years (6.3%). At the time of the report this group, doomed to infectiousness and invalidism, was 83.7% negative by culture. Resection is not a simple procedure, not everyone is eligible, the patient must still be cared for and cautious, but the results offer an added hope to patients, and neatly defines a new usage. Importantly, ARIZONA now has several well-trained surgeons in this field of surgery.

The world will be a less interesting, friendly, and helpful place without Victor Gore of Tucson. His skill and kindness were well known to thousands. He carried a huge load of work during the war years, with great credit, while bearing the burden of several cruel and uncomfortable ailments. We salute him, though somewhat late, and with sadness. Perhaps in the future, we can salute others who are deserving and still with us.

Planes, trains, and ships are improved means of transport, but the vestibular apparatus changeth not, and the stomachs of many continue to revolt. War-time reesarch by the U. S. and Great Britain in the navy and air force showed that hyoscine plus barbiturate is the premier pre-

ventive of *air- and sea-sickness,* in both the susceptible and the inexperienced. Such a drug should be valuable to Arizonans who use the airlines, or who fish off the Mexican coast. The first civilian prescription was "Vasano," a Schering compound containing hyoscine (scopolamine) and hyoscyamine camphorates, in tablet or suppository form. Donnatal contains similar materials. But what about the man who brags "I stick to good old Mother Sills?" Our scorn for patent medicines has not prevented an enquiry into the problem, with surprising results—good "old" Mother Sills has been modified, and contains chlorbutanol, caffeine, flavoring, and (you guessed it) hyoscine hydrobromide! The airlines have carefully studied the subject of air-sickness, and try to control the psychogenic factors, but they rarely use drugs. One line gives small doses of nembutal, one uses oxygen, another uses amonia inhalant, but they agree on the value of hyoscine, barbiturates, and (sometimes) ephedrine.

The probable reaction of tubercle bacilli to *streptomycin* might have been guessed. They are tough bacteria, hard to find, hard to stain, hard to control, hard to kill. It has been found that they often become "resistant" to action by the drug after it has been used for a few weeks or months, and that no amount is effective thereafter. The bacilli do not change virulence—they simply are indifferent. Furthermore, "contacts" of the patient may develop a disease which is resistant to streptomycin. This is not theory; several cases have been recognized and are under care. "Resistance" is an added reason for careful selection of cases on which to use the drug, for isolation of all infectious cases, and for a further search for a better or adjunct drug. Several western sanatoria have been using doses of *half a gram per day* for nearly a year, with almost complete absence of toxicity, with good clinical effect, and with a lower incidence of bankruptcy. The blue-ribbon rumor for this month (from a source which has not been wrong in four years) is that PAS (para-aminosalysilic acid) may be effective in redueng the "resistance" to shreptomycin.

Russian medicine is pretty much of a mystery. The Iron Curtain shuts out all observation of methods and facilities. We have a memory of

their poor equipment and dearth of personnel 10 years ago. Then too, we have the whoppers which trickle out about once a year—a heart (or head) which has been grafted into (onto) a body, a la Fu Manchu. Perhaps we can blame our own newspapers, to some extent. They can not be blamed, however, for at least two "miracle drugs" which have required infinite and futile efforts to analyze. They may be due to the imagination of Metchnikof, or due to the compulsion to invent something. The old Bogomolets "ACS" (anti-reticular cytotoxic serum) was an attempt to stimulate the "connective-tissue sys.em;" it has not been found useful for much of anything in the U. S. The new "NK," an anti-cancer compound made from trypanosomes, has so far been similarly ineffective. We'd hate to miss a therapeutic trick, even a red trick, but attention is bound to wane when Peter the Wolf never seems to come.

In the treatment of an "incurable" disease, a patient is entitled to graps at every legitimate straw. If this is done in a wise and careful manner, the patient has been well-advised. Dr. Otto Bendheim of Phoenix could therefore be given a "Viva!" for his conduct of the long, difficult, and public illness of the late Governor Osborne.

This might be called the Year of the Big Flood — flood of *anti-histamine drugs*, that is. The mail groans under a burden of new names and claims. They are used for all of the acute and chronic allergies, in all possible forms, with good but variable effect. A list of those drugs known in the pharmacies on August 15th, Y. of the B. F., may be of help;

Benadryl—Parke, Davis & Co. (capsules, elixir, and I-V.)
Pyribenzamine—Ciba (tablets, elixir, slow-action tablets, cream & ointment).
Thenylene—Abbott (tablets).
Antistine—Ciba (tablets and ophthalmic solution).
Thephorin—Hoffman-LaRoche (tablets).
Decapryn—Merrell (tablets).
Diatrin—Warner (tablets).
Neo-Anaergan—Merck (tablets).
Neo-Hetramine—Wyeth (tablets).
Tegathen—Lederle (tablets).
Trimeton—Schering (tablets).
Hydrillin—Searle (tablets of diphenhydramine & aminophyllin).
Histadyl—Lilly (tablets, syrup, cream & capsules plus ephedrine).

Sidney and Friedlaender of Detroit have appraised the effects of eight of these "palliatives." The newer peroral drugs are least toxic and most effective; the parental preparations are all of value.

Proving the worth, or laying the ghost, of a treatment for a chronic disease is like the chore of Tantalus. We have known the nostrums and fakes used for cancer and tuberculosis; now we have the more plausible *Gay Treatment for asthma*. Able specialists and the J.A.M.A. have called the Gay formula harmless and futile, yet suggestible and suffering patients have discarded regular therapy, tapped the till, and headed for Biloxi. The results are not published and some of the patients send back paens of praise; the distant doctor begins to wonder—and slips off to Biloxi for a look himself! The active drugs in the formula are in common use (potassium iodide, Fowler's solution, digitalis, phenobarbital, and sometimes cascara and "calmulsion"); they are present in variable and homeopathic quantities; and group psychotherapy is a potent factor. Sadly, the results elsewhere do not match those of Dr. Gay—a fact which he blames on the inability of others to "blend" the drugs in correct proportion, on the value of the change to the Mississippi climate, etc. The current view of ARIZONA allergists seems to be as follows: ⅓ believe it useless, will not use it; ⅓ will use it on

request, but explain its limitations; ⅛ prescribe it now and then to certain patients.

BCG vaccination is hugely important right now. Is it safe? Yes. Do complications occur? No. Is it approved? Yes. (The Nat'l. Tb. Assn. and USPHS have given it the amber light for large scale but controlled usage.) Is it necessary? Yes. (Prevention of tuberculosis requires something more than avoidance of the infectious patient; certain people, such as relatives, nurses, and medical attendants must be in contact during the process of cure.) Is it available? Only for use in carefully controlled groups; it is not generally available for private patients. The main source of supply is the Tice Laboratory in Chicago, where Dr. S. R. Rosenthal prepares the vaccine used by the USPHS. Rosenthal originated the multiple-puncture method of vaccination, a change which made the procedure safe and efficient, and actually saved its use in France. He has just written from the 50th Anniversary Meetings in Paris that about ten million individuals are known to have been vaccinated, five million by the multiple-puncture technic.

Methadon looks like a notable step ahead of the addicting analgesics. The drug houses and pharmacists are cautious, and the drug is listed under the Harrison Act, but such long-time workers on the problem as Chen (Lilly) and Seevers (U. of Mich.) have given a public cheer. The name "methadon" is official (A.M.A.), and is used by Abbott and Parke, Davis, but the Lilly drug is called "dolophine" and the Winthrop drug is "Adanon." Data on the pharmacology can be found in several reports; its effects on the nervous, respiratory, cardiac, and parasympathetic systems are similar to those of morphine. Advantages of methadon—more potent for pain (weight for weight) than morphine, many times more so than meperidine, codeine, and dilaudid; effective for cough; usable by mouth; side effects in only 13 to 15%, notably in ambulants; addiction is very rare (and not to be confused with habituation); withdrawal symptoms are slight and slow; it may be substituted for morphine, where it suppresses the abstinence syndrome; it produces euphoria only in narcotic users. The development of tolerance is not agreed upon. Disadvantages—lack of much sedative action (though it may be used with a bar-

biturate); a depressant effect on the baby during childbirth. The cost per dose is about the same as demerol and dilaudid. It may not be perfect but it should have a wide use in many chronic diseases in Arizona.

Child psychology is a tricky thing. Children in junior high school are said to have been attentive and impressed by the Oregon sex-education film but believed that the information should be given to *younger* groups. In another study, fourth to sixth graders admitted that they liked to read certain possibly-harmful comic strips, but strongly believed that the *"little kids" shouldn't be allowed to see them!*

Enough for now, but mas des pues.

Tuberculosis Abstracts

BCG vaccine, prepared under ideal conditions and administered to tuberculin negative persons by approved techniques, can be considered harmless. On the basis of studies reported in the European and American literature, an appreciable reduction in the incidence of clinical tuberculosis may be anticipated when certain groups of people who are likely to develop tuberculosis because of unusual exposure, inferior resistance, or both, are vaccinated.

BCG Vaccination in All Age Groups

BCG (Bacillus of Calmette and Guerin) is a bovine tubercle bacillus isolated in 1906. The virulence of the organism was reduced by culturing it on a bile potato medium for 13 years. This avirulent organism when inoculated into animals produced local nodular lesions without progression or generalization of the process. Shortly thereafter the inoculated animals showed a measure of resistance to progressive infection with virulent tubercle bacilli. With the assurance that the organism was harmless and that it offered a degree of protection against virulent tubercle bacilli, human application was begun in 1921 in Paris. Since that time it is estimated that some ten million vaccinations have been performed throughout the world.

The study reported here represents the longest continuous experiment on BCG vaccination in the United States. From experience over a period of 13 years, it can be stated unconditionally that BCG is safe, a fact that has had verification the world over.

The major premise of this study was that BCG should supplement present methods of early diagnosis and segregation. The manner of application of the BCG vaccine was by the multiple puncture method. In thousands of vaccinations by this method complications have been practically nil.

The groups studied were:

1. Newborn Infants — The children in this group came from households in which no tuberculosis could be demonstrated by roentgen examination. The infants were vaccinated or accepted as controls before they left the hospital, and no isolation was practiced.

There were 1,417 infants vaccinated during the first week of life. Three months later over 99 per cent of these infants had become tuberculin positive. Six and a half years after the single vaccination almost 80 per cent of those tested were still tuberculin positive. Among the 1,414 infants in the unvaccinated control group, 44 per cent were positive at the end of eight and a half years. This high rate of tuberculin conversion of the controls indicates the degree of exposure for both vaccinated and control groups.

There were 11 cases of tuberculosis with one death in the vaccinated group and 39 cases with seven deaths in the controls. This study has been in progress for 10 years.

2. Infants Born of Tuberculous Parents — Isolation was practiced for the controls and vaccinated alike for a period up to 12 weeks. Children were returned to their families only if examinations of concentrated sputum of the tuberculous member were negative.

There were two cases of tuberculosis in the vaccinated group of which one was hospitalized and none died as compared with five cases in the control group all of which were hospitalized and four died.

3. Student Nurses — Entering students were tuberculin tested and vaccinated and did not go in wards for a month. The vaccinated student nurses worked in the tuberculosis hospital while the control negative reactors did not. Despite the difference in exposure no cases of pulmonary tuberculosis developed among 142 vaccinated nurses and there were three cases in the 199 controls. There were three additional cases among the tuberculin positive reactors. This study has been in progress for seven years.

4. Medical Students. — These students were X-rayed and tuberculin tested, and 109 negative reactors who desired it were vaccinated. The control group consisted of those who refused. Among the vaccinated there were no cases of pulmonary tuberculosis but four cases were reported in the nonvaccinated group. This study was begun seven years ago.

5. Children in a Federal Housing Project— The entire community was first examined roentgenologically and those with active pulmonary disease were isolated. Alternate children who did not react to tuberculin were vaccinated. In the 625 unvaccinated negative reactors there were four cases of tuberculosis and no deaths. Among the 275 tuberculin positive reactors there were two cases of active tuberculosis with one death. Another death from tuberculosis occurred in a child whose tuburculin reaction was not recorded but whose original X-ray of the chest was negative. There were no cases among the 699 vaccinated children. This study is now in its sixth year.

6. Inmates of a Mental Institution — After a roentgen survey and tuberculin testing, the persons with active disease were isolated. Seven months after retesting, alternate negative reactors were vaccinated. There was no pulmonary tuberculosis in the 20 patients vaccinated and one case of bilateral minimal arrested pulmonary tuberculosis in 15 controls.

The efficacy of the vaccine appears well documented in this study. The morbidity and mortality rates from tuberculosis were reduced appreciably after vaccination. The extent, severity, duration and sequelae of the pulmonary lesions when they did occur in the vaccinated were less extensive, of shorter duration and calcified earlier than those in the nonvaccinated.

The portion of our population who would benefit most by the vaccination would seem to be those from susceptible races and those unduly exposed to tuberculosis in all age groups. It is again stressed that those who are vaccinated should have a period of at least one month before and after vaccination when there is no direct contact with virulent tubercle bacilli.

BCG Vaccination in All Age Groups, Sol Roy Rosenthal, M. D., Eleanor I. Leslie, M. D., and Erhard Loewinsohn, M. D., The Journal of the American Medical Association, January 10, 1948.

Book Reviews

CORRELATIVE NEUROANATOMY, by Joseph J. McDonald, M. S., M. Sc. D., M. D.; Joseph G. Chusid, A. B., M. D.; Jack Lang, M. S., M. D. Fourth Edition, Revised: 60 Illustrations. University Medical Publishers, Post Office Box 761, Palo Alto, California. Price $3.00.

A comprehensive manual for the student in gross anatomy, neuroanatomy, neurodiagnosis and neurology which correlates the anatomical and physiological background with the clinical findings of neurological disorders. Included are numerous diagrams which clearly show the distribution and functional components of the cranial, spinal and autonomic nerves, and the essentials of brain and spinal cord localization.

The first part deals with the peripheral nerves, and each major nerve is well illustrated and systematically described. The autonomics are concisely discussed including the physiology and pharmacology of the system.

The second section is on neurodiagnosis and includes a discussion of the anatomy, physiology and localization in the brain and spinal cord. The subjects of motion, sensation, reflexes, trophic changes, electrical examination, intracranial pneumography and examination of the cerebrospinal fluid are thoroughly outlined. A discussion of electroencephalography with representative electroencephalograms has been added.

The third section of the book deals with diseases and disorders of the central nervous system, and has been completely rewritten and enlarged.

The appendix gives a complete list of neurological signs and syndromes, a brief discussion of muscular dystrophies and atrophies and an outline of the neurological examination.

PRACTICAL BACTERIOLOGY, HEMATOLOGY, AND PARASITOLOGY: by E. R. Stitt. M. D., Ph. M., Sc. D., LL. D.; Rear Admiral, Medical Corps, and Surgeon General, U. S. Navy, Retired. Graduate of the London School of Tropical Medicine. Formerly: President of the National Board of Medical Examiners; Head of the Department of Tropical Medicine, U. S. Naval Medical School; Associate Professor of Medical Zoology, University of the Philippines. Consultant in Tropical Medicine to the Secretary of War, World War II. Paul W. Clough, M. D. Physician-in-charge of the Diagnostic Clinic, Johns Hopkins Hospital; Assistant Professor of Medicine, Johns Hopkins University; Associate Professor of Medicine, University of Maryland. Sara E. Branham, M. D., Ph. D., Sc. D., Senior Bacteriologist, National Institute of Health; Professorial Lecturer in Preventive Medicine, The George Washington University School of Medicine; Chairman, Laboratory Secton, American Public Health Association, 1946-1947; and Contributors. Tenth Edition. The Blakiston Company, Philadelphia, Toronto. Price, $10.00.

This book affords a ready reference to both the clinician and the laboratory technician. It is divided into four parts. Part I deals with bacteriology, micro-organisms, and filfrable viruses in every form. It includes a complete chapter on mycology. And also one on the theories of immunity and hypersensitiveness. Part II written by Dr. Paul W. Clough on the subject of hematology represents the last and the latest word on diseases of the blood. Part III is on the subject of parasitology. It describes, probably without exception, every parasite that attacks the human body, the most important of which are the blood and intestinal protozoa. This work is of intensive importance now because so many Americans lived in the tropics during the recent war, and many of them have contracted tropical diseases. Part IV is devoted to clinical and pathological examinations of the various body fluids and organs. Such subjects as the tests for liver function are brought up to date. The book goeg sinto much detail in explaining the various steps and techniques in making the many laboratory examinations which are so important today in arriving at diagnoses. Preparation of bacterial media and reagents is also described. But probably the most outstanding feature of the book is the explanation of all the laboratory results and their correlation with the clinical symptoms and findings of the patient.

SUCCESSFUL MARRIAGE; Edited by Morris Fishbein. M. D., Editor, "Journal of the American Medical Association" and "Hygeia, The Health Maragine;" and Ernest W. Burgess, Ph. D., Professor and Chairman, Department of Sociology, University of Chicago. Published by Doubleday & Company, Inc., Garden City, N. Y.

In this very readable guide to a successful marriage, thirty-eight authors from a wealth of counseling experience discuss frankly and in detail all problems related to marriage. The discussions beginning with the diagnosis of love and the preparation of marriage continues

through marriage, marital adjustments, conception, pregnancy, heredity, childbirth, the child in the family, child psychology, parent-child relationships, and social problems of sex and marriage.

CLINICAL LABORATORY METHODS AND DIAGNOSIS, by R. B. H. Gradwohl, M. D., D. St., F. R. S. T. M. and H. (London). Director of the Gradwohl Laboratories and Gradwohl School of Laboratory Technique; Pathologist to Christian Hospital; Director, Research Laboratory, St Louis Metropolitan Police Department, St. Louis, Mo.; Commander, Medical Corps, United States Naval Reserve, Ret.; Fellow, American Public Health Association, and, Dr. Prdro Kouri, Director, Institute of Tropical Medicine; Professor of Parasitology and Tropical Medicine; Vice-Dean of the Faculty of Medicine, Havana University; Director of Laboratories Kuba, Havana, Cuba.2 Published by The C. V. Mosby Company, St. Louis, Mo. Three Volumes, $40.00.

This three volume work is an encyclopedia on laboratory methods and diagnosis. It not only gives the technique for laboratory procedure in every detail, but includes the history and differential diagnosis of diseases that have positive laboratory findings. The chapter on blood groups and transfusion brings this entire subject up to date in all respects. The chapter on toxicology technique with a complete list of all poisons, giving the diagnosis, treatment, and methods of identifying each is an invaluable book in any physician's office. There is a chapter on the detection of crime by laboratory methods. And the subject of electrocardiography is explained in much detail. Volume III is devoted to parasitology and tropical medicine. This is an enormous field which becomes more important each day since the barriers and limitations to travel all over the world are rapidly being eliminated. While this set of books is primarily intended for the laboratory workers, there is so much medicine, and differential diagnosis and treatment included that they are invaluable additions to any physician's library.

Brookings Report

In May of 1947, the Brookings Institution at the request of Senator H. Alexander Smith* (N.J.) undertook the preparation, entirely at its own expense, of a memorandum on "Medical Care for the Individual."

Drs. Lewis Meriam and George W. Bachman, experienced senior members of the Brookings Institution staff, were in charge of the study. Other members of the staff, including the President Mr. H. G. Moulton, served as a committee for Critical Review. In February, 1948, an outline of the study and the "Conclusions" were released for publication. These are the findings of experienced analysts and carry the stamp of the Brookings Institution, the best known and most reliable institution in the field of Social, Economic and Governmental Research.

"The Conclusions":

1. Probably no great nation in the world has among its white population better health than prevails in the United States.

2. It is apparent that the United States under its voluntary system of medical care has made greater progress in the application of medical and sanitary science than any other country. This progress is now reflected in low mortality and morbidity rates of infectious diseases and in increased life expectancy. There is every reason to believe that these trends will continue under our present system of medical care.

3. The nonwhites in the United States have materially poorer health than the whites, but the evidence does not indicate that this condition is primarily or even mainly due to inadequacy of medical care.

4. The advances in health among both the whites and the nonwhites that have been made in the United States in the past four decades do not suggest basic defects in the American system.

5. The so-called draft statistics have been widely used to show bad health among the American people and the need for revolutionary changes in arrangements for medical care of individuals, they are unreliable as a measure of the health of the Nation and cannot be used to show the extent of the medical needs of the country as a whole.

6. Present medical care in the United States compares favorably with that which existed in other leading nations prior to the Second World War.

7. The conditions in extremely poor rural areas that lack the resources to support adequate public services, such as health work, education and highways cannot be satisfactorily solved by subsidies.

8. The United States has some individuals and families not possessed of the resources to enable them to pay for adequate care. In the future, as in the past, provision must be made for them through public funds or philanthropy. It is doubtful if they could be effectively covered by compulsory insurance because they would lack the means to attain and maintain an insured status. The large majority of American families have the resources to pay for adequate medical care if they elect to give it a high priority among the several objects of expenditure.

9. Compulsory health insurance would necessitate a high degree of governmental regulation and control over the personnel and the agencies engaged in providing medical care. Past experience with governmental regulations and control

(Continued on page 97)

* Chairman of the Sub-committee on Health of the U. S. Senate Committee on Labor and Public Welfare.

Directory

ARIZONA MEDICAL ASSOCIATION

Organized 1892

642 SECURITY BUILDING

234 N. CENTRAL AVE., PHOENIX, ARIZONA

OFFICERS AND COUNCIL

Harold W. Kohl ..... President
1811 E. Speedway, Tucson

Robert S. Flinn ..... President Elect
15 E. Monroe, Phoenix

Thomas H. Bate ..... Vice President
15 E. Monroe, Phoenix

Frank J. Milloy ..... Secretary
15 E. Monroe, Phoenix

C. E. Yount ..... Treasurer
Prescott

James R. Moore ..... Speaker of House
15 E. Monroe, Phoenix

Jesse D. Hamer ..... Delegate to A.M.A.
15 E. Monroe, Phoenix

O. E. Utzinger ..... Alternate-Delegate
Ray

D. F. Harbridge ..... Medical Defense
15 E. Monroe, Phoenix

DISTRICT COUNCILORS

A. I. Podolsky ..... Central District
Yuma

Arthur C. Carlson ..... Northern District
Cottonwood

Robert E. Hastings ..... Southern District
1811 E. Speedway, Tucson

COUNCILORS AT LARGE

George O. Bassett ..... Prescott

W. Paul Holbrook ..... Tucson

Dan L. Mahoney ..... Tucson

COMMITTEES

STANDING COMMITTEES

INDUSTRIAL RELATIONS: Dr. James Lytton-Smith, Phoenix; Dr. Robert E. Hastings, Tucson; Dr. Carl H. Gans, Morenci; Dr Harry T. Southworth, Prescott; Dr. Charles W. Suit, Jr., Phoenix.

SCIENTIFIC ASSEMBLY Dr. R. S. Flinn, Phoenix; Dr. O. W. Thoeny, Phoenix; Dr. H. T. Southworth, Prescott; Dr. L. G. Jekel, Phoenix.

MEDICAL ECONOMICS: Dr. Robert S. Flinn, Phoenix; Dr. Meade Clyne, Tucson; Dr. H. D. Ketcherside, Phoenix.

MEDICAL DEFENSE: Dr. D. F. Harbridge, Phoenix; Dr. A. C. Carlson, Cottonwood; Dr. O. E. Utzinger, Ray.

EDITING & PUBLISHING: Dr. Jesse D. Hamer, Phoenix; Dr. Walter Brazie, Kingman; Dr. R. Lee Foster, Phoenix.

LEGISLATION: Dr. Jesse D. Hamer, Phoenix; Dr. Walter Brazie, Kingman; Dr. H. D. Cogswell, Tucson; Dr. H. B. Lehmberg, Casa Grande; Chas. H. Laugharn, Clifton; C. H. Peterson, Winslow; F. W. Knight, Safford; Chas. B. Huestis, Hayden; one appointment pending.

HISTORY & OBITUARIES: Dr Hal W. Rice, Historian, Bisbee; Dr. Frank J. Milloy, Phoenix; Dr. Harold W. Kohl, Tucson; Dr. W. W. Watkins, Phoenix.

PROFESSIONAL BOARD

Dr. Hugh C. Thompson, Tucson; Dr. Boris Zemsky, Tucson; Dr. E. A. Born, Prescott; Dr. C. B. Warrenburg, Phoenix; Dr. E. Payne Palmer, Phoenix; Dr. Geo. L. Dixon, Tucson; Dr. B. L. Snyder, Phoenix.

HEALTH ACTIVITIES BOARD

Dr. M. W. Merrill, Phoenix; Dr. Robert M. Matts, Yuma; Dr. D. E. Nelson, Safford; Dr. A. H. Dysterheft, McNary; W. McCracken, Phoenix; Dr. H. H. Brainard, Tucson; Dr. Broda O. Barnes, Kingman

Woman's Auxiliary

NATIONAL OFFICERS AND CHAIRMEN OF STANDING COMMITTEES FOR 1948-1949

President ..... Mrs. Luther H. Kice
95 Brook St., Garden City, Long Island, N. Y.

President-Elect ..... Mrs. David B. Allman
104 St. Charles St., Atlantic City

VICE PRESIDENTS

First—Mrs. Ralph Eusden ..... Long Beach 7, California
4360 Myrtle Avenue

Second—Mrs. William W. Potter ..... Knoxville, Tennessee
129 Kenesaw Ter.

Third—Mrs. Lloyd C. Harvie ..... Saginaw, Michigan
417 Ardussi Avenue

Fourth—Mrs. Robert Flanders ..... Manchester, N. H.
North River Road

Treasurer ..... Mrs. Arthur A. Herold
1166 Louisiana Avenue, Shreveport, La.

Const. Secretary ..... Mrs. George Turner
3009 Silver Street, El Paso, Texas

Directors—one year
Mrs. Eustace A. Allen, 18 Collier Rd., Atlanta, Georgia.
Mrs. I. J. Bridenstine, P. O. Box 1475, Missoula, Montana.
Mrs. U. G. McClure, 1592 Quarrier St., Charleston 1, W. Va.
Mrs. David S. Long, Harrisonville, Mo.

Directors—two years
Mrs. James P. Simonds, 234 E. Pearson St., Chicago 11, Ill.
Mrs. Jesse D. Hamer, 1819 N. 11th Ave., Phoenix, Arizona.
Mrs. Leo J. Schaefer, 700 Highland, Salina, Kansas.

CHAIRMEN STANDING COMMITTEES

Finance ..... Mrs. Scott C. Applewhite
240 Bushnell St., San Antonio, Texas

Hygeia ..... Mrs. Aldace W. Hammond
214 Fourth St., Beaver Dam, Wisconsin

Legislation ..... Mrs. Charles L. Shafer
219 N. Sprague Ave., Kingston, Penn.

Organization ..... Mrs. Ralph Eusden
4360 Myrtle Ave., Long Beach 7, Calif.

Publications ..... Mrs. James P. Simonds
234 E. Pearson, Chicago 11, Ill.

Program ..... Mrs. Harry F. Pohlmann
29 Railroad Ave., Middletown, N. Y.

Public Relations ..... Mrs. Asher Yaguda
61 Lincoln Park, Newark 2, N. J.

Revisions ..... Mrs. Rosoce E. Mosiman
2686 Magnolia Ave., Seattle 99, Washington

Special Committee—
Reference ..... Mrs. Rollo K. Packard
14093 Davana Ter., Sherman Oaks, California

Historian ..... Mrs. Jesse D. Hamer
1819 N. 11th Ave., Phoenix, Arizona

Parliamentarian ..... Mrs. Alfred L. Madden
45 S. Allen St., Albany, N. Y.

OFFICERS OF THE AUXILIARY TO THE ARIZONA MEDICAL ASSOCIATION 1948 - 1949

President ..... Mrs. Thomas Bate
305 W. Cypress St., Phoenix

President-Elect ..... Mrs. Charles Starnes
110 E. Alameda, Tucson

1st Vice-President ..... Mrs. William Schoffman
36 N. Country Club Drive, Phoenix

2nd Vice-President ..... Mrs. Arthur J. Present
1136 N. Highland, Tucson

Treasurer ..... Mrs. Karl Harris
16 E. Catalina, Phoenix

Recording Secretary ..... Mrs. Henry Hough
225 Yavapai Drive, Prescott

Corresponding Secretary ..... Mrs. Robert Phillips
521 W. Holly, Phoenix

Directors—Mrs. Paul Case, Rt. 2, Box 216C, Phoenx
Mrs. Hervey Faris, 155 S. Palomar Drive, Tucson
Mrs. Harry Southworth, Country Club, Prescott

COMMITTEE CHAIRMEN

Health ..... Mrs. O. O. Thoeny
721 Encanto Drive S. W., Phoenix

National Representative ..... Mrs. Jesse D. Hamer
1819 N. Eleventh Ave., Phoenix

Publicity ..... Mrs. Matthew Cohen
934 W. Palm Lane, Phoenix

Bulletin ..... Mrs. Roy Hewitt
15 Calle Corte, Tucson

Hygeia ..... Mrs. N. A. Jacobson
1333 E. Mabel, Tucson

Legislation ..... Mrs. Leslie Kober
2848 N. Seventh St., Phoenix

Historian ..... Mrs. George Irvine
1100 Mill Ave., Tempe

Nominating ..... Mrs. Harry Southworth
Country Club, Prescott

Public Relations ..... Mrs. Carlos Craig
727 Encanto Drive S. W., Phoenix

Post War Planning ..... Mrs. Arthur J. Present
1136 N. Highland, Tucson

Parliamentarian ..... Mrs. Charles Thomas
Santa Rita Hotel, Tucson

Revisions ..... Mrs. Edward Hayden
El Encanto Estates, Tucson

GILA COUNTY OFFICERS 1948-1949

President ..... Mrs. John Aarni, Ray
Vice-President ..... Mrs. Cyril Cron, Miami
Secretary-Treasurer ..... Mrs. Clarence Gunter, Globe

MARICOPA COUNTY OFFICERS 1948-1949

President ..... Mrs. E. Henry Running
321 W. Palm Lane, Phoenix

President-Elect ..... Mrs. Carlos Craig
727 Encanto Drive, Phoenix

1st Vice-President ..... Mrs. Karl Harris
16 E. Catalina, Phoenix

2nd Vice-President ..... Mrs. James Pillemore
34 N. McDonald, Mesa

Recording Secretary ..... Mrs. Harry French
840 E. Windsor, Phoenix

Treasurer ..... Mrs. R. W. Hussong
22 E. Pierson, Phoenix

PIMA COUNTY OFFICERS

President ..... Mrs. Harold W. Kohl
100 E. Sierra Vista Drive, Tucson

President-Elect ..... Mrs. Donald B. Lewis
2548 E. Fourth, Tucson

1st Vice-President ..... Mrs. B. P. Storts
El Encanto Estates, Tucson

2nd Vice-President ..... Mrs. Stanley Kitt
2043 E. Fourth, Tucson

Recording Secretary ..... Mrs. J. Donald Francis
1227 N. Campbell, Tucson

Treasurer ..... Mrs. H. H. Brainard
330 N. Vine, Tucson

Corresponding Secretary ..... Mrs. Donald Schell
105 Calle de Jardin, Tucson

YAVAPAI COUNTY OFFICERS 1948-1040

President ..... Mrs. Ernest A. Born
Country Club, Prescott

Vice-President ..... Mrs. Vera Urriolayoitia
P. O. Box 484, Cottonwood

Secretary ..... Mrs. Alvin Kirmse
Whipple

Treasurer ..... Mrs. Joseph P. McNally
208 Grove Ave., Prescott

Program ..... Mrs. Henry Hough
225 Yavapai Drive, Prescott

Health ..... Mrs. Peter Gallente
Whipple

Legislation ..... Mrs. James H. Allen
829 Crest Ave., Prescott

Public Relations ..... Mrs. Louis Packard
Whipple

Publicity ..... Mrs. Harry Southworth
Country Club, Prescott

Hygeia ..... Mrs. Walter Edwards
Cottonwood

Post War Planning ..... Mrs. George Bassett
346 S. Mt. Vernon St., Prescott

MRS. CLARENCE GUNTER

Mrs. Clarence Gunter was graduated from Fairview Hospital School of Nursing in Minneapolis, Minnesota in 1926. She took a two-year course in post graduate work in surgery. She became surgical supervisor of the operating room, following in the footsteps of Mrs. Jesse D. Hamer. She remained at Fairview eight years.

Following Fairview she worked in the Veterans Bureau in Asheville, N. C., then came to the San Carlos Indian Hospital, where she met and married Dr. Clarence Gunter in 1934.

Mrs. Gunter was Gila County's first president.

FIRST MEETING OF GILA AUXILIARY

The Auxiliary to the Gila County Medical Society was formed at the Society's regular meeting in December, 1946, at the Cobre Valley Country Club of Globe-Miami. This was the usual dinner meeting, preceded by cocktails, to which the wives are always invited, informal and friendly. Because the group is small, and the distances traveled by some of the members comparatively long, the meetings of the society and its auxiliary are always held at the same place, at the same time, and are informal.

Special guests at the December meeting were several state auxiliary officers, and the national president, Mrs. Jesse Hamer of Phoenix. State officers present were: Mrs. Hervey Faris, Tucson, state president; Mrs. Tom Bate, Phoenix, state vice-president, and Mrs. Karl Harris, Phoenix, state treasurer.

Mrs. Clarence Gunter, of Globe, acted as chairman of the meeting, which followed dinner, and

was held in the ladies' sitting room of the club, while the society held its meeting in the main hall.

Mrs. Hamer gave a short resume of her work as National President, and explained a few of the over-all aims of the Auxiliary. Mrs. Bate explained the work of the state and county chapters, and answered questions asked by the group.

The wives of the thirteen Gila Society members voted unanimously to form a new chapter of the Arizona Medical Auxiliary and it became its fourth active unit.

Mrs. Gunter appointed a nominating committee, composed of Mrs. Robert Wade, Miami; Mrs. Marcus Kelly, Miami, and Mrs. Cyril Cron, Miami, to select nominees for county offices, these to be voted upon at the next meeting.

The meeting was adjourned.

The following are the charter members of Gila County Auxiliary. Although a young organization, the enthusiasm and progress shown in their years' activities make the State Auxiliary proud of their new auxiliary.

1. Mrs. John Aarni, Ray.
2. Mrs. A. J. Bosse, Globe.
3. Mrs. Nelson D. Brayton, Miami.
4. Mrs. M. E. Burgess, Miami.
5. Mrs. Cyril Cron, Miami.
6. Mrs. Clarence Gunter, Globe.
7. Mrs. T. C. Harper, Globe.
8. Mrs. Ira E. Harris, Miami.
9. Mrs. Charles Huestis, Hayden.
10. Mrs. Marcus Kelly, Miami.
11. Mrs. Walter O'Brien, Globe.
12. Mrs. Russel Noice, Miami.
13. Mrs. Robert Wade, Miami.

REPORT FROM GILA COUNTY AUXILIARY, 1947-1948

At a dinner meeting at the Cobre Valley Country Club in January, election of officers was held. Mrs. John Aarni of Ray was elected president, but has been very ill with Undulent Fever, so has not been able to carry on. Mrs. Cyril Cron of Miami was elected vice-president. She is visiting in South America so is unable to be present. Mrs. Clarence Gunter of Globe was elected Secretary-Treasurer.

We have two members less than the original thirteen we had last year. Mrs. Russell Noice of Miami recently lost her husband, and has gone back east. Dr. and Mrs. Robert Wade have moved to California, but we have one new prospect, as a new doctor will soon replace Dr. Wade at the Miami-Inspiration Hospital.

We have had monthly meetings since October, but most of the meetings have been purely social, as we have been guests of the doctors at their monthly dinner meetings.

All members subscribed to the Bulletin, and we have four new Hygeia subscriptions.

We decided at our last meeting to have the Gila County Hospital as our project for the coming year. All of the members are to have a benefit bridge, and the money is to be used for bed lamps in the wards at the County Hospital.

Respectfully submitted,

CAMILLA GUNTER, Sec.-Treas.

BROOKINGS REPORT

(Continued from page 94)

in the United States causes doubt as to whether it encourages initiative and development.

10. The problem of eliminating politics from Government administration is extremely difficult. It does not seem probable that politics could be eliminated from medical care supplied under a governmental system.

11. Compulsory insurance would inject the Government into the relationship between practitioner and patient. A real danger exists that Government actions would impair that relationship and hence the quality of medical care.

12. The administration of compulsory insurance would require thousands of Government employees for accounting, auditing and inspection and investigation.

13. The cost of medical care presumably would increase because of (a) administrative expenses; (b) the tendency to insured persons to make unnecessary and often unreasonable demands upon the medical care services; and (c) the tendency of some practitioners and agencies to take advantage of the system for their own financial advantage.

14. The adoption of compulsory insurance would not immediately make available adequate service for all, because there are not at present the facilities nor a sufficient number of trained and experienced physicians, dentists and nurses to meet the demand which would result from compulsory insurance.

15. It seems questionable whether a country which once embarks on compulsory insurance can turn back but must attempt to remedy defects by more complete government control and administration.

The study is published in the form of a monograph. Copies of the monograph entitled "The Issue of Compulsory Health Insurance" can be secured by writing, with check enclosed, to Brookings Institution, 722 Jackson Place N. W., Washington 6, D. C. (*The price - Paper Bound $2 — Cloth Bound $4.)*

PHYSICIANS' DIRECTORY

INTERNAL MEDICINE

PHYSICIANS' DIRECTORY

INTERNAL MEDICINE—(Cont'd.)

STUART SANGER, M. D.
123 S. Stone Avenue
Tucson, Arizona

Certified by American Board
of Internal Medicine

EVELYN G. WATKINS, M. D.
313 Valley National Bldg.

Telephone 5178
If no answer, 2818

Tucson, Arizona

HARRY EDWARD THOMPSON, M. D., F. A. C. P.
435 N. Tucson Blvd.
Tucson, Arizona
Telephone 7034 - 2818
INTERNAL MEDICINE AND
RHEUMATIC DISEASES
Certified by American Board of Internal Medicine

CLINIC

BUTLER CLINIC

501-505 Fifth Avenue

SAFFORD, ARIZONA

CHILDREN'S DISEASES

TREVOR G. BROWNE, M. D.
DISEASES OF CHILDREN

Medical Arts Building
543 East McDowell Road
Phone 3-2901
Phoenix, Arizona

MILTON C. F. SEMOFF, M. D.
2440 East Sixth Street
Tucson, Arizona
Phone 5933

Fellow of the
American Academy of Pediatrics

CARL A. HOLMES, M. D.
DISEASES OF INFANTS and CHILDREN

1401 North Seventh Avenue
Phone 4-9092
Phoenix, Arizona

C. MICHAEL WITZBERGER, M. D.
Fellow of the American Academy
of Pediatrics

522 N. Tucson Boulevard Office Phone 5411
TUCSON, ARIZONA

PHYSICIANS' DIRECTORY

EYE, EAR, NOSE and THROAT

WESLEY G. FORSTER, M. D.
EYE, EAR, NOSE and THROAT
Medical Arts Building
Phone 3-1666
Phoenix, Arizona

DENNIS BERNSTEIN, M. D.
OTOLARYNGOLOGY AND
PERORAL ENDOSCOPY
Certified by the
American Board of Otolaryngology
602 N. Fourth Ave.
Telephones: Office 4668 - Residence 1671
TUCSON, ARIZONA

PHIL H. LOVELESS, M. D.
DISEASES AND SURGERY OF THE EYE
209 Medical Arts Building
543 East McDowell Road
Phone 2-3127 Phoenix, Arizona
Hours by appointment

JOHN S. MIKELL, M. D.
1811 East Speedway
Tucson, Arizona
EAR, NOSE AND THROAT
BRONCHOSCOPY

BERNARD L. MELTON, M. D., F. A. C. S.
Diplomate of American Board of Ophthalmology
Diplomate of American Board of Otolaryngology

DORSEY R. HOYT, M. D.
EYE, EAR, NOSE AND THROAT
605 Professional Bldg. Phone 3-8209
PHOENIX, ARIZONA

Telephone 5584
A. HARRY NEFFSON, M. D.
EAR, NOSE AND THROAT AND
BRONCHOSCOPY
Certified by American Board of Otolaryngology
2510 East Sixth Street
Tucson, Arizona

ALLERGY

E. A. GATTERDAM, M. D.
ALLERGY
910 Professional Building
Phoenix, Arizona

Telephone 7505
F. B. SHUTZBANK, M. D.
MEMBER OF THE AMERICAN
ACADEMY OF ALLERGY
4065 E. Cooper St. Tucson, Arizona

PHYSICIANS' DIRECTORY

PHYSICIANS and SURGEONS

L. D. BECK, M. D., F. A. C. S.
D. T. MOATS, M. D.
PHYSICIAN and SURGEON
1626 N. Central Phone 4-1620
PHOENIX, ARIZONA

I. L. GARRISON, M. D.
Physician and Surgeon
Office Practice Only
GERIATRICS
540 West McKinley St. Phone 3-3001
Phoenix, Arizona

S. R. CANIGLIA, M. D.
PHYSICIAN and SURGEON
543 East McDowell Road
Phone 3-3641
Phoenix, Arizona

CHAS. N. PLOUSSARD, B. S., M. D. F. A. C. S.
General Practice with Special Attention to SURGERY and UROLOGY
907 Professional Bldg. Phone 3-3193
Phoenix, Arizona

LUCILLE M. DAGRES, M. D.
GENERAL PRACTICE
210 Medical Arts Building
543 East McDowell Road
Phone 4-5714
Phoenix, Arizona

J. ALLEN GINN, Jr., M. D.
General Practice with Special Attention to OBSTETRICS and GYNECOLOGY
1626 N. Central Avenue
PHOENIX, ARIZONA

LINCOLN MEMORIAL HOSPITAL

Medical Staff **Referred cases only**
NILE M. ROBSON, Supt. Casa Grande, Arizona

PHYSICIANS' DIRECTORY

DERMATOLOGY

KENNETH C. BAKER, M. D.
DERMATOLOGY

Telephone 3671 721 N. Fourth Ave.
Tucson, Arizona

OBSTETRICS

FRED C. JORDAN, M. D.
Practice Limited to
OBSTETRICS and PEDIATRICS

1109 Professional Building
Phone 4-1379
Phoenix, Arizona

MAX COSTIN, M. D.
OBSTETRICS AND GYNECOLOGY
Phone 3366

Diplomate of American Board of Obstetrics and Gynecology
614 N. Fourth Ave. Tucson, Arizona

ORTHOPEDIC SURGERY

JAMES LYTTON-SMITH, M. D.
RONALD S. HAINES, M. D.
JOHN H. RICKER, M. D.
STANFORD F. HARTMAN, M. D.
Section on
ORTHOPEDIC SURGERY
Lois Grunow Memorial Clinic
926 East McDowell Road
Phoenix, Arizona

ROBERT E. HASTINGS, M.D., F.A.C.S.
Diplomate American Board of Orthopaedic Surgery
ORTHOPAEDIC SURGERY

1811 East Speedway
TUCSON, ARIZONA

GEO. A. WILLIAMSON, M.D., F.A.C.S.
LEO L. TUVESON, M. D.
Practice Limited to
ORTHOPAEDIC SURGERY

800 North First Ave. Telephone 2-2375
PHOENIX, ARIZONA

GEORGE L. DIXON, M. D.
ORTHOPAEDIC SURGERY
Diplomate of the American Board of Orthopaedic Surgery

2716 East 4th Street Telephone 4958
TUCSON, ARIZONA

J. DONALD FRANCIS, M. D., F.A.C.S.
Diplomate American Board of Orthopaedic Surgery
ORTHOPAEDIC SURGERY

433 N. Tucson Blvd.
TUCSON, ARIZONA

PHYSICIANS' DIRECTORY

SURGERY

THOMAS H. BATE, M. D.
Practice Limited to Surgery
Professional Bldg. Phone 4-3326
Phoenix, Arizona

A. I. RAMENOFSKY, M. D.
SURGERY and GYNECOLOGY
39 West Adams Phone 3-1769
Phoenix, Arizona

H. D. KETCHERSIDE, M. D.
SURGERY and UROLOGY
DONALD A. POLSON, M. D.
GENERAL SURGERY
800 North First Avenue
Phone 4-7245
Phoenix, Arizona

J. B. LITTLEFIELD, M. D., F. A. C. S.
2432 East Sixth St.
Tucson, Arizona
Office Phone 3245 Res. Phone 8669
Certified by the American Board of Surgery

LOUIS P. LUTFY, M. D.
SURGERY and GYNECOLOGY
301 West McDowell Rd Phone 3 4200
Phoenix, Arizona

W. R. MANNING, M. D., F. A. C. S.
SURGERY
Diplomate American Board of Surgery
724 N. Stone Ave. Phone 7411
Tucson, Arizona

D. E. SCHELL, M. D.
Practice Limited to
PROCTOLOGY
Phone 3432 721 N. 4th Ave.
TUCSON

NEUROLOGICAL SURGERY

JOHN RAYMOND GREEN, M. D.
Certified by the American Board of Neurological Surgery
910 Professional Building
Telephone 4-2174
PHOENIX, ARIZONA

NEUROLOGY and PSYCHIATRY

EDWARD BLANK, M. D.
Practice Limited Exclusively to
PSYCHIATRY AND NEUROLOGY
Telephone 2-2181 733 W. McDowell Road
If no answer, 3-4189
PHOENIX, ARIZONA

PHYSICIANS' DIRECTORY

NEUROLOGY and PSYCHIATRY

OTTO L. BENDHEIM, M. D.
NEUROLOGY and PSYCHIATRY
1515 North Ninth Street
PHOENIX, ARIZONA
Certified by American Board of Psychiatry and Neurology

CHARLES W. SULT, Jr., M. D.
Diplomate of American Board
Practice limited to
NEUROLOGY, PSYCHIATRY AND ELECTROENCEPHALOGRAPHY
710 Professional Building
Phoenix, Arizona

PATHOLOGICAL LABORATORIES

G. O. HARTMAN, M. D.
PATHOLOGICAL LABORATORY
20 E. Ochoa St. Phone: 4779
TUCSON, ARIZONA

PATHOLOGICAL LABORATORY
507 Professional Building
Phoenix, Arizona
Telephone 3-4105

UROLOGY

MERRIWETHER L. DAY, M. D.
F. A. C. S.
Diplomate of The American Board of Urology

LADDIE L. STOLFA, M. D.
Lois Grunow Memorial Clinic
926 East McDowell Road
Tel. 4-3674 Phoenix

W. G. SHULTZ, M.D., F. A. C. S.
Diplomate of The American Board of Urology

EDWIN C. GRAF, M.D.
Diplomate of The American Board of Urology

2448 East Sixth Street
Telephone 4864 Tucson, Arizona

PAUL L. SINGER, M. D., F. A. C. S.
Certified American Board of UROLOGY
39 West Adams Street Phone 3-1739
PHOENIX, ARIZONA

DONALD B. LEWIS, M. D.
UROLOGY
123 So. Stone Ave. Phone 4500
Tucson, Arizona

RADIOLOGY

PATHOLOGICAL LABORATORY
507 Professional Building Phoenix, Arizona
W. WARNER WATKINS, M. D., Director
R. LEE FOSTER, M. D., Radiologist
DOUGLAS D GAIN, M. D., Radiologist
JAMES G. DAVIS, M. D., Radiologist
THOMAS T. FROST, M. D., Pathologist
Telephone 3-4105

GOSS - DUFFY LABORATORY
X-RAY AND CLINICAL DIAGNOSIS
125 West Monroe St.
Phoenix

The Borden Pledge

". . . to keep always in mind our original purpose —to produce milk that meets, first of all, the health needs of tiny children. By so doing, to offer to people of all ages milk that fulfills these highest standards of wholesomeness, richness and purity.

"To maintain Borden leadership in scientific and sanitary requirements, to deliver this vital food to you when you need it, regardless of difficulties. Finally, to bring Borden's to you at a price that will enable millions to enjoy milk that can be depended upon . . . always."

1858-1948

Borden's

FINE DAIRY PRODUCTS

Two good reasons Doctors recommend the diaper service that gives

DOUBLE PROTECTION

1 DIAPERS PROCESSED UNDER "NATIONAL LABORATORY CONTROL." As a member of the National Institute of Diaper Services, our diapers are subject to the strict, periodic inspection of the Usona Bio-Chem Laboratories, of Philadelphia. Trained bacteriologists run culture tests *throughout the year,* to make sure our diapers meet rigid standards of sanitation and hygiene. Wash water, rinsing, soap formulas — every step of our process — is rigidly checked . . . again and again!

2 DIAPERS WHICH ARE ACTUALLY ANTISEPTIC AND GERMICIDAL! Every diaper is treated with a new-type organic compound—*which actually gives the cloth itself both antiseptic and germicidal properties.* The result is a diaper which may stay germ-free for 5, 8, 10 (in some cases up to 29) days! A diaper which not only has the power to inhibit, but to destroy, germs! (Tests made in accordance with specifications set down by the U.S. Government.)

NATIONAL INSTITUTE DIAPER SERVICES MEMBER

PLAY SAFE — BY ASKING YOUR PATIENTS TO SUBSCRIBE TO THE DIAPER SERVICE WHICH BEARS THIS SEAL!

It's your guarantee that you are prescribing diapers which are snow-white, soft, fluffy, and 100% "hospital" clean.

Baby's Valet

PHOENIX **TUCSON**

We cordially invite you to inspect our immaculate facilities!